

Prostate Cancer

Current Awareness Bulletin

February 2019

This Current Awareness Bulletin is produced by the Yeovil Academy Library to provide staff with a range of prostate cancer-related resources to support practice. It includes recently published guidelines and research articles.

Systematic Reviews



[Taxane-based chemohormonal therapy for metastatic hormone-sensitive prostate cancer](#)

Niranjan J Sathianathen, Yiannis A Philippou, Gretchen M Kuntz, Badrinath R Konety, Shilpa Gupta, Alastair D Lamb, Philipp Dahm

Intervention

Review

15 October 2018

There has been considerable development in the treatment of advanced prostate cancer over the last decade. A number of agents, including docetaxel, cabazitaxel, abiraterone acetate, enzalutamide and sipuleucel-T, have been reported to improve outcomes in men with castration-resistant disease and their use is being explored in hormone-sensitive prostate cancer.

[Naftopidil for the treatment of lower urinary tract symptoms compatible with benign prostatic hyperplasia](#)

Eu Chang Hwang, Shreyas Gandhi, Jae Hung Jung, Mari Imamura, Myung Ha Kim, Ran Pang, Philipp Dahm

Intervention

Review

11 October 2018

Benign prostatic hyperplasia (BPH) is a common condition in ageing men that may cause lower urinary tract symptoms (LUTS). Treatment aims are to relieve symptoms and prevent disease-related complications. Naftopidil is an alpha-blocker (AB) that has a high affinity for the A1d receptor that may have advantages in treating LUTS in this setting. This is an update of a Cochrane Review first published in 2009. Since that time, several large randomised controlled trials (RCTs) have been reported, making this update relevant.

[Penile rehabilitation for postprostatectomy erectile dysfunction](#)

Yiannis A Philippou, Jae Hung Jung, Martin J Steggall, Stephen T O'Driscoll, Caitlin J Bakker, Joshua A Bodie, Philipp Dahm

Intervention

Review

23 October 2018

Despite efforts to preserve the neurovascular bundles with nerve-sparing surgery, erectile dysfunction remains common following radical prostatectomy. Postoperative penile rehabilitation seeks to restore erectile function but results have been conflicting.

[Phosphodiesterase inhibitors for lower urinary tract symptoms consistent with benign prostatic hyperplasia](#)

Smita Pattanaik, Ravimohan S Mavuduru, Arabind Panda, Joseph L Mathew, Mayank M Agarwal, Eu Chang Hwang, Jennifer A Lyon, Shrawan K Singh, Arup K Mandal

Intervention

Review

16 November 2018

Benign prostatic hyperplasia (BPH) refers to non-malignant enlargement of the prostate gland that may cause bothersome lower urinary tract symptoms (LUTS). Alpha-blockers (ABs) and 5-alpha reductase inhibitors (5-ARIs) are the mainstay of medical treatment. Recently, phosphodiesterase inhibitors (PDEIs) that so far have been used mainly to treat erectile dysfunction were introduced to treat male LUTS.



[1. Multiparametric MRI to improve detection of prostate cancer compared with transrectal ultrasound-guided prostate biopsy alone: the PROMIS study](#)

Adding multiparametric MRI as an initial test prior to prostate biopsy can reduce the proportion of men having unnecessary biopsies and improve the detection of clinically significant prostate cancer.

[Full text: YDH](#)

2018 [NIHR HTA programme](#)

[2. Prostate resected weight and postoperative prostate cancer incidence after transurethral resection of the prostate: A population-based study. \(PubMed\)](#)

This study shows that BPH patients who had a smaller volume of tissue resected during TURP show a higher incidence of prostate cancer postoperatively. Currently, no clear mechanism is shown to demonstrate the relationship between resected prostate weight and the incidence of tumors.

[Full text: YDH](#)

2019 [Medicine](#)

[3. Docetaxel Versus Surveillance After Radical Prostatectomy for High-risk Prostate Cancer: Results from the Prospective Randomised, Open-label Phase 3 Scandinavian Prostate Cancer Group 12 Trial](#)

Docetaxel without hormonal therapy did not significantly improve biochemical disease-free survival after radical prostatectomy.

[Full text: YDH](#)

2018 [EvidenceUpdates](#)

[4. Gene Expression Profiling for Prostate Cancer](#)

2018 [Oregon Health Evidence Review Commission](#)

[5. Padeliporfin for untreated localised prostate cancer](#)

Evidence-based recommendations on padeliporfin (Tookad) for untreated, unilateral, low-risk prostate cancer in adults.

2018 [National Institute for Health and Clinical Excellence - Technology Appraisals](#)

[6. Partial ablation versus radical prostatectomy in intermediate-risk prostate cancer: the PART feasibility RCT](#)

Randomisation of men to a RCT comparing partial prostate ablation and radical prostatectomy is feasible.

[Full text: YDH](#)

2018 [NIHR HTA programme](#)

Guidelines

NICE National Institute for Health and Care Excellence

[Prostate cancer](#)

Everything NICE has said on diagnosing and treating prostate cancer in an interactive flowchart
NICE Pathway Published October 2011 Last updated November 2018

[Padeliporfin for untreated localised prostate cancer \(TA546\)](#)

Evidence-based recommendations on padeliporfin (Tookad) for untreated, unilateral, low-risk prostate cancer in adults

Technology appraisal guidance Published November 2018

[Non-invasive MRI scan for Prostate Cancer recommended by NICE](#)

NICE has recommended the scan as a first-line investigation for people with suspected clinically localised prostate cancer.

News Published December 2018

UpToDate

UpToDate[®] is accessible via the links section of the library intranet [YCloud](#) page or via the [library blog](#). It can also be accessed at uptodate.com/login with an OpenAthens username and password. To register for an OpenAthens account [click here](#).

[Prostate cancer: Risk stratification and choice of initial treatment](#)

Literature review current through: Jan 2019. | This topic last updated: Oct 16, 2018.

INTRODUCTION — Prostate cancer is the second most common cancer in men worldwide, with an estimated 1,100,000 new cases and 307,000 deaths in 2012 [1]. In developed areas, prostate cancer is increasingly being diagnosed when the tumor is confined to the prostate, due at least in part to screening with prostate-specific antigen (PSA). However, prostate cancers confined to the gland may become less frequent than more invasive tumors as PSA screening rates fall [2].

[Clinical presentation and diagnosis of prostate cancer](#)

Literature review current through: Jan 2019. | This topic last updated: Nov 05, 2018.

INTRODUCTION — Prostate cancer is among the most common cancers in men worldwide, with an estimated 1,600,000 cases and 366,000 deaths annually [1]. In the United States, 11 percent of men are diagnosed with prostate cancer over their lifetime, with the incidence generally rising with age [2]; there are an estimated 165,000 cases and 29,000 deaths annually [3]. The overall five-year survival rate is over 98 percent.

[Screening for prostate cancer](#)

Literature review current through: Jan 2019. | This topic last updated: Jun 25, 2018.

Although screening for prostate cancer with prostate-specific antigen (PSA) can reduce mortality from prostate cancer, the absolute risk reduction is very small. Given limitations in the design and reporting of the randomized trials, there remain important concerns that the benefits of screening are outweighed by the potential harms to quality of life, including the substantial risks for overdiagnosis and treatment complications.

[Overview of the treatment of disseminated castration-sensitive prostate cancer](#)

Literature review current through: Jan 2019. | This topic last updated: Nov 12, 2018.

Although most cases of prostate cancer are diagnosed and treated while disease is localized, some men have evidence of metastatic prostate cancer at presentation, and others develop disseminated disease after their definitive treatment. This may be manifested by the presence of an elevated serum prostate-specific antigen (PSA) after initial definitive therapy or by the presence of metastases.

Journal Articles

Please click on the blue link (where available) to access the full text. You may need an OpenAthens username and password. To register for an OpenAthens account [click here](#).

If you would like help obtaining any of the articles, please contact the Library.

NICE Healthcare Databases

1. Inhibition of LOXL2 Enhances the Radiosensitivity of Castration-Resistant Prostate Cancer Cells Associated with the Reversal of the EMT Process.

Author(s): Xie, Peng; Yu, Hongliang; Wang, Feijiang; Yan, Feng; He, Xia

Source: BioMed Research International; Jan 2019 ; p. 1-10

Publication Date: Jan 2019

Publication Type(s): Academic Journal

Available at [BioMed Research International](#) - from Europe PubMed Central - Open Access

Available at [BioMed Research International](#) - from Hindawi Open Access Journals

Abstract:Introduction. Radiotherapy is the mainstay in the treatment of prostate cancer. However, significant radioresistance of castration-resistant prostate cancer (CRPC) cells constitutes a main obstacle in the treatment of this disease. By using bioinformatic data mining methods, LOXL2 was found to be upregulated in both androgen-independent prostate cancer cell lines and radioresistant tumor samples collected from patients with prostate cancer. We speculate that LOXL2 may play an important role in the radioresistance of CRPC cells. Methods. The effect of LOXL2 knockdown on the radiosensitivity of androgen-independent prostate cancer cell lines was measured by the clonogenic assay and xenograft tumor experiments under in vitro and in vivo conditions, respectively. In studies on the mechanism, we focused on the EMT phenotype changes and cell apoptosis changes induced by LOXL2 knockdown in DU145 cells. The protein levels of three EMT biomarkers, namely, E-cadherin, vimentin, and N-cadherin, were measured by western blotting and immunohistochemical staining. Cell apoptosis after irradiation was measured by flow cytometry and caspase-3 activity assay. Salvage experiment was also conducted to confirm the possible role of EMT in the radiosensitization effect of LOXL2 knockdown in CRPC cells. Results. LOXL2 knockdown in CRPC cells enhanced cellular radiosensitivity under both in vitro and in vivo conditions. A significant reversal of EMT was observed in LOXL2-silenced DU145 cells. Cell apoptosis after irradiation was significantly enhanced by LOXL2 knockdown in DU145 cells. Results from the salvage experiment confirmed the key role of EMT process reversal in the radiosensitization effect of LOXL2 knockdown in DU145 cells. Conclusions. LOXL2 plays an important role in the development of cellular radioresistance in CRPC cells. Targeting LOXL2 may be a rational avenue to overcome radioresistance in CRPC cells. A LOXL2-targeting strategy for CRPC treatment warrants detailed investigation in the future.

Database: CINAHL

2. Pretreatment Neutrophil to Lymphocyte Ratio (NLR) Predicts Prognosis for Castration Resistant Prostate Cancer Patients Underwent Enzalutamide.

Author(s): Kumano, Yohei; Hasegawa, Yoriko; Kawahara, Takashi; Yasui, Masato; Miyoshi, Yasuhide; Matsubara, Nobuaki; Uemura, Hiroji

Source: BioMed Research International; Jan 2019 ; p. 1-5

Publication Date: Jan 2019

Publication Type(s): Academic Journal

Available at [BioMed Research International](#) - from Europe PubMed Central - Open Access

Available at [BioMed Research International](#) - from Hindawi Open Access Journals

Abstract: Introduction. Nearly 80% of advanced prostate cancer patients respond to initial androgen deprivation therapy (ADT). However, ADT does not prevent the progression of prostate cancer over the long term, and the disease eventually progresses to castration-resistant prostate cancer (CRPC). Prior to the development of enzalutamide (ENZ) and abiraterone acetate, docetaxel was the only established treatment with life-prolongation for CRPC. ENZ is a second-generation anti-androgen receptor drug that has contributed to improving the prognosis of CRPC. Several studies have reported factors predicting the efficacy of ENZ; however, there are no confirmed biomarkers. The neutrophil-to-lymphocyte ratio (NLR) is an easily calculated biomarker that is associated with the prognosis of several solid malignancies. However, there were few studies investigated NLR for ENZ in patients with mCRPC. We examined the usefulness of the NLR as a predictive tool for ENZ. Methods. We retrospectively examined a total of 106 CRPC patients who were treated with ENZ until September 2016 in Yokohama City University Hospital, Yokohama City University Medical Center, and National Cancer Center Hospital East. ENZ was routinely started as a dose of 160 mg per day; the dosage was reduced in some patients due to side effects. Drug holiday for 1-2 weeks or dose reduction to 80-120mg was done and no patients discontinued ENZ treatment due to adverse effects. ENZ was stopped when cancer progression was detected based on PSA elevation, radiographic findings, and deterioration of the patient's performance status. The cut-off NLRs for overall survival (OS) and cancer-specific survival (CSS) were determined based on the receiver-operator curves. Kaplan-Meier curves were used to analyze the factors associated with OS or CSS and a log-rank test was performed. A multivariate analysis was also performed to analyze the factors associated with the prognosis. Results. We retrospectively reviewed 106 consecutive CRPC patients who were both treated with ENZ and were able to be counted before ENZ NLR. Cut-off point was 2.14 for both OS and CSS by receiver operator characteristic curve. The patients were then divided into the higher NLR group (≥ 2.14) and lower NLR group (< 2.14). Multivariate analysis showed that NLR and predocetaxel chemotherapy were independent risk factors for both overall and cancer-specific survival. Conclusions. The NLR might be a useful biomarker for predicting the prognosis of mCRPC patients who are treated with ENZ.

Database: CINAHL

3. Prostate Cancer & Exercise.

Author(s):

Source: Nutrition Action Health Letter; Jan 2019; vol. 46 (no. 1); p. 7-7

Publication Date: Jan 2019

Publication Type(s): Periodical

Available at [Nutrition Action Health Letter](#) - from EBSCO (CINAHL Plus with Full Text)

Available at [Nutrition Action Health Letter](#) - from ProQuest (Hospital Premium Collection) - NHS Version

Database: CINAHL

4. Effect of Neoadjuvant Hormone Therapy on Resection Margin and Survival Prognoses in Locally Advanced Prostate Cancer after Prostatectomy Using Propensity-Score Matching.

Author(s): Kim, Sung Han; Park, Eun Young; Joo, Jungnam; Joung, Jae Young; Seo, Ho Kyung; Chung, Jinsoo; Lee, Kang Hyun

Source: BioMed Research International; Dec 2018 ; p. 1-7

Publication Date: Dec 2018

Publication Type(s): Academic Journal

Available at [BioMed Research International](#) - from Europe PubMed Central - Open Access

Available at [BioMed Research International](#) - from Hindawi Open Access Journals

Abstract: This study aimed to investigate the effect of neoadjuvant hormone therapy (NHT) on resection margin positivity, biochemical-recurrence- (BCR-) free survival, and overall survival (OS) in 176 patients with locally advanced prostate cancer (LAPC) treated with radical prostatectomy using propensity-score matching, including 79 (44.9%) patients treated with the NHT. Fifty pairs of one-to-one propensity-score matching were matched to investigate the pure effect of NHT on resection margin positivity, BCR, and OS with a statistical significance of $p < 0.050$. Before matching, NHT, tumor volume percentage, and extracapsular extension were significant factors for resection margin positivity ($p \leq 0.001$); however, after matching, NHT became insignificant in the multivariate analysis ($p = 0.084$). In the survival analysis, NHT was not associated with BCR or OS before and after matching (BCR: hazard ratio, 1.35 and 0.84, respectively; OS: hazard ratio, 1.05 and 0.77, respectively; $p \geq 0.539$ for all). Conversely, PSA level (HR, 2.23), extracapsular extension (HR, 2.10), and lymphovascular invasion (HR, 1.85) were significant factors for BCR ($p \leq 0.001$ for all), but none were significant factors for OS in the propensity-score matching analysis ($p \geq 0.948$). Therefore, NHT was not a significant factor for resection margin positivity, BCR-free survival, and OS before and after propensity-score matching in patients with LAPC.

Database: CINAHL

5. EBRT for prostate cancer raises risk of developing bladder Ca.

Author(s): Levitan, Dave

Source: Urology Times; Dec 2018; vol. 46 (no. 12); p. 10-10

Publication Date: Dec 2018

Publication Type(s): Periodical

Available at [Urology Times](#) - from EBSCO (CINAHL Plus with Full Text)

Available at [Urology Times](#) - from ProQuest (Hospital Premium Collection) - NHS Version

Abstract: The article discusses a 2018 study which shows that external beam radiotherapy (EBRT) for prostate cancer is linked to an increased risk for bladder cancer development in comparison with radical prostatectomy treatment. It states, however, that the finding is limited by potential biases in the type of analysis. Also noted are the limiting factor of inadequate information on the RT dose, and possible improvements in EBRT technique in recent years.

Database: CINAHL

6. Prostate Cancer

Author(s): Cabrera, Gilberto; Holle, Morgan Nicole

Source: CINAHL Nursing Guide; Nov 2018

Publication Date: Nov 2018

Publication Type(s): Quick Lesson

Database: CINAHL

7. Plumbagin-Loaded Nanoemulsion Drug Delivery Formulation and Evaluation of Antiproliferative Effect on Prostate Cancer Cells.

Author(s): Chrastina, Adrian; Baron, Veronique T.; Abedinpour, Parisa; Rondeau, Gaelle; Welsh, John; Borgström, Per

Source: BioMed Research International; Nov 2018 ; p. 1-7

Publication Date: Nov 2018

Publication Type(s): Academic Journal

Available at [BioMed Research International](#) - from Europe PubMed Central - Open Access

Available at [BioMed Research International](#) - from Hindawi Open Access Journals

Abstract:Background. Plumbagin, a medicinal plant-derived 5-hydroxy-2-methyl-1,4-naphthoquinone, is an emerging drug with a variety of pharmacological effects, including potent anticancer activity. We have previously shown that plumbagin improves the efficacy of androgen deprivation therapy (ADT) in prostate cancer and it is now being evaluated in phase I clinical trial. However, the development of formulation of plumbagin as a compound with sparing solubility in water is challenging. Methods. We have formulated plumbagin-loaded nanoemulsion using pneumatically controlled high pressure homogenization of oleic acid dispersions with polyoxyethylene (20) sorbitan monooleate as surfactant. Nanoemulsion formulations were characterized for particle size distribution by dynamic light scattering (DLS). The kinetics of in vitro drug release was determined by equilibrium dialysis. Anticancer activity toward prostate cancer cells PTEN-P2 was assessed by MTS (Owen's reagent) assay. Results. Particle size distribution of nanoemulsions is tunable and depends on the surfactant concentration. Nanoemulsion formulations of plumbagin with 1-3.5% (w/w) of surfactant showed robust stability of size distribution over time. Plumbagin-loaded nanoemulsion with average hydrodynamic diameter of 135 nm showed exponential release of plumbagin with a half-life of 6.1 h in simulated gastric fluid, 7.0 h in simulated intestinal fluid, and displayed enhanced antiproliferative effect toward prostate cancer cells PTEN-P2 compared to free plumbagin. Conclusion. High drug-loading capacity, retention of nanoparticle size, kinetics of release under simulated physiological conditions, and increased antiproliferative activity indicate that oleic-acid based nanoemulsion formulation is a suitable delivery system of plumbagin.

Database: CINAHL

8. Evaluation of Bisphenol A (BPA) Exposures on Prostate Stem Cell Homeostasis and Prostate Cancer Risk in the NCTR-Sprague-Dawley Rat: An NIEHS/FDA CLARITY-BPA Consortium Study.

Author(s): Prins, Gail S.; Wen-Yang Hu; Lishi Xie; Guang-Bin Shi; Dan-Ping Hu; Birch, Lynn; Bosland, Maarten C.

Source: Environmental Health Perspectives; Nov 2018; vol. 126 (no. 11); p. 1-12

Publication Date: Nov 2018

Publication Type(s): Academic Journal

Available at [Environmental Health Perspectives](#) - from EBSCO (CINAHL Plus with Full Text)

Available at [Environmental Health Perspectives](#) - from EBSCO (Health Business FullTEXT Elite)

Available at [Environmental Health Perspectives](#) - from ProQuest (Hospital Premium Collection) - NHS Version

Available at [Environmental Health Perspectives](#) - from Europe PubMed Central - Open Access

Abstract:BACKGROUND: Previous work determined that early life exposure to low-dose Bisphenol A (BPA) increased rat prostate cancer risk with aging. Herein, we report on prostate-specific results from CLARITY-BPA (Consortium Linking Academic and Regulatory Insights on BPA Toxicity), which aims to resolve uncertainties regarding BPA toxicity. OBJECTIVES: We sought to a) reassess whether a range of BPA exposures drives prostate pathology and/or alters prostatic susceptibility to hormonal carcinogenesis, and b) test whether chronic low-dose BPA targets prostate epithelial stem and progenitor cells. METHODS: Sprague-Dawley rats were gavaged daily with vehicle, ethinyl estradiol (EE) or 2:5-25,000 Ig BPA/kg-BW during development or chronically, and prostate pathology was assessed at one year. One developmentally exposed cohort was given testosterone plus estradiol (T+E) implants at day 90 to promote carcinogenesis with aging. Epithelial stem and progenitor cells

were isolated by prostasphere (PS) culture from dorsolateral prostates (DLP) of rats continuously exposed for six months to 2:5-250 lg BPA/kg-BW. Gene expression was analyzed by quantitative real time reverse transcription polymerase chain reaction (qRT-PCR). RESULTS: Exposure to BPA alone at any dose did not drive prostate pathology. However, rats treated with EE, 2.5, 250, or 25,000 lg BPA/kg-BW plus T+E showed greater severity of lateral prostate intraepithelial neoplasia (PIN), and DLP ductal adenocarcinoma multiplicity was markedly elevated in tumor-bearing rats exposed to 2:5 lg BPA=kg-BW. DLP stem cells, assessed by PS number, doubled with chronic EE and 2:5 lg BPA=kg-BW exposures. PS size, reflecting progenitor cell proliferation, was greater at 25 and 250 lg BPA doses, which also shifted lineage commitment toward basal progenitors while reducing luminal progenitor cells. CONCLUSIONS: Together, these results confirm and extend previous evidence using a rat model and human prostate epithelial cells that low-dose BPA augments prostate cancer susceptibility and alters adult prostate stem cell homeostasis. Therefore, we propose that BPA exposures may contribute to the increased carcinogenic risk in humans that occurs with aging.

Database: CINAHL

9. IMRT ownership study methodology unsound...Hollenbeck BK, Kaufman SR, Yan P. Urologist Practice Affiliation and Intensity-modulated Radiation Therapy for Prostate Cancer in the Elderly. Eur Urol. 2018 Apr;73(4):491-498.

Author(s): Kapoor, Deepak

Source: Urology Times; Nov 2018; vol. 46 (no. 11); p. 35-35

Publication Date: Nov 2018

Publication Type(s): Periodical

Available at [Urology Times](#) - from EBSCO (CINAHL Plus with Full Text)

Available at [Urology Times](#) - from ProQuest (Hospital Premium Collection) - NHS Version

Database: CINAHL

10. Predicting Advanced Prostate Cancer from Modeling Early Indications in Biopsy and Prostatectomy Samples via Transductive Semi-Supervised Survival Analysis.

Author(s): Khan, Faisal M.

Source: BioMed Research International; Oct 2018 ; p. 1-12

Publication Date: Oct 2018

Publication Type(s): Academic Journal

Available at [BioMed Research International](#) - from Europe PubMed Central - Open Access

Available at [BioMed Research International](#) - from Hindawi Open Access Journals

Abstract: Prostate cancer is the most prevalent form of cancer and the second most common cause of cancer deaths among men in the United States. Accurate prognosis is important as it is the principal factor in determining the treatment plan. Prostate cancer is a complex disease which advances in stages. While clinical failure (including metastasis) is a significant endpoint following a radical prostatectomy, it can often take years to manifest, usually too late to be optimistically treated. In practice, the earlier endpoint of PSA Recurrence is frequently used as a surrogate in prognostic modeling. The central issue in these models is managing censored observations which challenge traditional regression techniques. The true target times of a majority of instances are unknown; what is known is a censored target representing some earlier indeterminate time. In this work we apply a novel transduction approach for semi-supervised survival analysis which has previously been shown to be powerful in medical prognosis. The approach considers censored samples as semi-supervised regression targets leveraging the partial nature of unsupervised information. We explore the use of this approach in building prostate cancer progression models from multimodal characteristics extracted from both biopsy and prostatectomy tissues samples. In this work, the approach leads to a significant increase in performance for

predicting advanced prostate cancer from earlier endpoints and may also be useful in other diseases for predicting advanced endpoints from earlier stages of the disease.

Database: CINAHL

11. Novel method in the diagnostic arsenal for prostate cancer.

Author(s): CARLSSON, SIGRID

Source: Urology Times; Oct 2018; vol. 46 (no. 10); p. 4-4

Publication Date: Oct 2018

Publication Type(s): Periodical

Available at [Urology Times](#) - from EBSCO (CINAHL Plus with Full Text)

Available at [Urology Times](#) - from ProQuest (Hospital Premium Collection) - NHS Version

Abstract:An introduction to the journal is presented in which the editor discusses the article published within the issue about the IsoPSA assay as a new diagnostic tool in diagnosing prostate cancer.

Database: CINAHL

12. Early-life alcohol intake raises PCa risk: Cumulative lifetime intake also associated with high-grade prostate cancer, data indicate.

Author(s): Hilton, Lisette

Source: Urology Times; Oct 2018; vol. 46 (no. 10); p. 6-7

Publication Date: Oct 2018

Publication Type(s): Periodical

Available at [Urology Times](#) - from EBSCO (CINAHL Plus with Full Text)

Available at [Urology Times](#) - from ProQuest (Hospital Premium Collection) - NHS Version

Abstract:The article discusses a study led by Emma H. Allot of the University of North Carolina that investigated the role of early-life alcohol intake to prostate cancer (PCa) risk. The study found that earlier-life and cumulative alcohol consumption are important considerations in analyzing prostate cancer risks. Evidence also suggests that since prostate carcinogenesis spans decade, it makes earlier-life alcohol exposure important in understanding PCa etiology.

Database: CINAHL

13. MultiParametric Magnetic Resonance Imaging-Based Nomogram for Predicting Prostate Cancer and Clinically Significant Prostate Cancer in Men Undergoing Repeat Prostate Biopsy.

Author(s): Huang, Cong; Song, Gang; Wang, He; Ji, Guangjie; Li, Jie; Chen, Yuke; Fan, Yu; Fang, Dong; Xiong, Gengyan; Xin, Zhongcheng; Zhou, Liqun

Source: BioMed Research International; Sep 2018; vol. 2018 ; p. 1-10

Publication Date: Sep 2018

Publication Type(s): Academic Journal

Available at [BioMed Research International](#) - from Europe PubMed Central - Open Access

Available at [BioMed Research International](#) - from Hindawi Open Access Journals

Abstract:Objective. To develop and internally validate nomograms based on multiparametric magnetic resonance imaging (mpMRI) to predict prostate cancer (PCa) and clinically significant prostate cancer (csPCa) in patients with a previous negative prostate biopsy. Materials and Methods. The clinicopathological parameters of 231 patients who underwent a repeat systematic prostate biopsy and mpMRI were reviewed. Based on Prostate Imaging and Reporting Data System, the mpMRI results were assigned into three groups: Groups "negative," "suspicious," and "positive." Two clinical nomograms for predicting the probabilities of PCa and csPCa were constructed. The performances of nomograms were assessed using area under the receiver

operating characteristic curves (AUCs), calibrations, and decision curve analysis. Results. The median PSA was 15.03 ng/ml and abnormal DRE was presented in 14.3% of patients in the entire cohort. PCa was detected in 75 patients (32.5%), and 59 (25.5%) were diagnosed with csPCa. In multivariate analysis, age, prostate-specific antigen (PSA), prostate volume (PV), digital rectal examination (DRE), and mpMRI finding were significantly independent predictors for PCa and csPCa (all $p < 0.01$). Of those patients diagnosed with PCa or csPCa, 20/75 (26.7%) and 18/59 (30.5%) had abnormal DRE finding, respectively. Two mpMRI-based nomograms with super predictive accuracy were constructed (AUCs = 0.878 and 0.927, $p < 0.001$), and both exhibited excellent calibration. Decision curve analysis also demonstrated a high net benefit across a wide range of probability thresholds. Conclusion. mpMRI combined with age, PSA, PV, and DRE can help predict the probability of PCa and csPCa in patients who underwent a repeat systematic prostate biopsy after a previous negative biopsy. The two nomograms may aid the decision-making process in men with prior benign histology before the performance of repeat prostate biopsy.

Database: CINAHL

14. Combination of Prostate Cancer Antigen 3 and Prostate-Specific Antigen Improves Diagnostic Accuracy in Men at Risk of Prostate Cancer.

Author(s): Liyun Cao; Chi Hyun Lee; Jing Ning; Handy, Beverly C.; Wagar, Elizabeth A.; Qing H. Meng

Source: Archives of Pathology & Laboratory Medicine; Sep 2018; vol. 142 (no. 9); p. 1106-1112

Publication Date: Sep 2018

Publication Type(s): Academic Journal

Available at [Archives of Pathology & Laboratory Medicine](#) - from EBSCO (CINAHL Plus with Full Text)

Available at [Archives of Pathology & Laboratory Medicine](#) - from ProQuest (Hospital Premium Collection) - NHS Version

Abstract:Context.--Prostate cancer antigen 3 (PCA3) is a noncoding RNA that is highly overexpressed in prostate cancer (PCa) tissue and excreted in urine in patients with PCa. Objective.--To assess the clinical utility of urinary PCA3 in men at risk of PCa. Design.--We retrospectively reviewed a cohort of 271 men (median age, 63 years) with elevated prostate-specific antigen (PSA), and/or strong family history, and/or abnormal digital rectal examination findings. Diagnostic sensitivity, specificity, positive and negative predictive values (PPV, NPV), positive and negative likelihood ratios (LR+, LR-), and diagnostic odds ratio (DOR), and area under the receiver-operating characteristic curves (AUC) were evaluated. Results.--PCA3 score was a significant predictor of prostate biopsy outcome ($P < .001$). A PCA3 score of 30 was the optimal cutoff for our study cohort, with a diagnostic sensitivity of 72.7%, specificity of 67.5%, PPV of 47.1%, NPV of 86.2%, LR+ of 2.24, LR- of 0.40, and DOR of 5.55. At this cutoff score, the PCA3 assay could avoid 57.4% of unnecessary invasive biopsies in the overall study cohort and 70.3% in the subgroup with PSA level in the "gray zone" (4-10 ng/mL). A logistic regression algorithm combining PCA3 with PSA increased the AUC from 0.571 for PSA-only to 0.729 ($P < .001$). The logistic combined marker gained the ability to discriminate low-grade from high-grade cancers. Conclusions.--Our data suggest that PCA3 improves the diagnostic sensitivity and specificity of PSA and that the combination of PCA3 with PSA gives better overall performance in identification of PCa than serum PSA alone in the high-risk population.

Database: CINAHL

15. An Overview of Prostate Cancer Screening Recommendations and Shared Decision-Making Process Model to Guide Nursing Practice.

Author(s): Cadet, Myriam Jean

Source: MEDSURG Nursing; Sep 2018; vol. 27 (no. 5); p. 301-304

Publication Date: Sep 2018

Publication Type(s): Academic Journal

Available at [MEDSURG Nursing](#) - from EBSCO (CINAHL Plus with Full Text)

Available at [MEDSURG Nursing](#) - from ProQuest (Hospital Premium Collection) - NHS Version

Abstract:Some empirical studies have found prostate cancer screening is beneficial, while others have conceded it is not consequential and can even be harmful to patients' health (Gabrani, Knibb, Petrela, Hoxha, & Gabrani, 2016; Schröder et al., 2014). An overview of prostate cancer screening guidelines is offered, with a guide proposed to help providers implement the shared decision-making process with patients before screening.

Database: CINAHL

Library Resources

The books listed below are a selection of those that can be found at the library. To search the library catalogue in full, visit swims.nhs.uk.

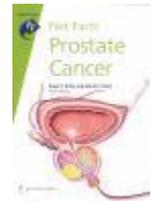
[Prostate cancer \(6th ed\) \(2009\)](#)

[Kirby, Roger S. \(Author\)](#)

[WJ752](#)

Book

Kirby, Roger S.; Patel, Manish I.



In the News

NHS choices

[Popular prostate cancer videos on YouTube 'inaccurate and biased'](#)

nhs.uk

Wednesday November 28 2018

Researchers viewed the 150 first-listed videos on YouTube for prostate cancer screening and treatment, checking them against standard patient information quality criteria. They found that 77% had errors or bias either in the videos or the comments beneath them. Worryingly, the most popular videos were the ones that scored worst on the quality checks.

[Radical prostatectomy extends life expectancy in localised prostate cancer, trial finds](#)

The BMJ

January 2019

Radical prostatectomy is associated with significantly more years of life gained than watchful waiting in men with localised prostate cancer, long term follow-up results from a randomised trial have shown.

[Prostate cancer screening with prostate-specific antigen \(PSA\) test: a clinical practice guideline](#)

The BMJ

September 2018

This guideline makes a weak recommendation against offering systematic PSA screening based on an updated systematic review. The recommendation is weak because there may be a small, though uncertain, benefit of screening on prostate cancer mortality

[NICE recommends MRI for suspected prostate cancer to reduce biopsies](#)

The BMJ

January 2019

Many hospitals already offer mpMRI, but a freedom of information request carried out for the charity Prostate Cancer UK earlier this year found that only half of men with suspected prostate cancer were being offered the scan before biopsy.

[Quality of life in men living with advanced and localised prostate cancer in the UK: a population-based study](#)

Men diagnosed with advanced disease do not report substantially different HRQOL outcomes to those diagnosed with localised disease, although considerable problems with hormonal function and fatigue are reported in men treated with androgen deprivation therapy.

The Lancet

February 2019

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