

# Using the NADA Protocol to Improve Wellbeing for Prostate Cancer Survivors: Five Case Studies

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## **ABSTRACT**

This paper presents case studies of five men diagnosed and treated for prostate cancer, who participated in a project to assess the potential for using the NADA ear acupuncture protocol to improve wellbeing. Selected for their diversity, they illustrate the range of diagnoses, treatments, and associated bothersome symptoms experienced by prostate cancer survivors. They also illustrate the variety of ways that NADA acupuncture in a group setting can contribute to overall wellbeing. Examining the progress of these individuals through treatment provides valuable insights into the effects of NADA treatment. These cases may influence perceptions of clinicians, patients, acupuncturists and funders about NADA's potential role in the ongoing support of men with cancer of the prostate. They also suggest that future research is warranted.

**Keywords:** Acupuncture, ear acupuncture, auriculotherapy, National Acupuncture Detoxification Association (NADA), prostate cancer, survivorship, wellbeing, group treatment

## **Introduction to prostate cancer**

The most common cancer affecting men in the UK and Europe, prostate cancer is the second most common cancer affecting males worldwide, with over 1.1 million diagnoses in 2012 (Globocan, 2012). In the UK, there are roughly 110 new diagnoses per day, with more than a third of cases diagnosed in men aged over 75 years of age (Cancer Research UK, 2014a). Early diagnosis and improved treatment mean that survival is improving; currently 84% of men with prostate cancer survive their disease by 10 or more years (Cancer Research UK, 2014b).

Treatment options include watchful waiting, active surveillance, hormonal therapies, external beam or internal (brachytherapy) radiotherapy, surgery, and chemotherapy (Cancer Research UK, 2014c). In spite of earlier diagnosis and improved treatments and survival rates, there is a considerable symptom burden associated with prostate cancer. Consequences of treatment include erectile dysfunction, loss of libido, hot flushes, fatigue, bladder incontinence, bowel problems, anaemia, osteoporosis, weight gain, and breast swelling (gynaecomastia). Long-term consequences include increased risk of diabetes,

cardiovascular disease, and cardiac events. Distress, anxiety, irritability, depression, and loss of confidence are emotional and psychological consequences, and there may also be associated relationship problems (Roth et al., 2008).

Patients rarely present with a single symptom; cancer survivors have been reported to experience an average of 11-13 concurrent symptoms (Miaskowski et al., 2004; Fan et al., 2007). Cancer survivorship programmes focus on the complex health issues experienced by survivors, including short- and long-term consequences of cancer and its treatments, as well as late effects of treatment (those arising many months or years after the end of treatment). These may occur alongside pre-existing health issues, as well as those that arise naturally as part of the aging process (Macmillan Cancer Support, 2013).

## **Acupuncture and prostate cancer**

Increasing evidence supports using acupuncture in the management of a range of symptoms, physical and psychosocial, experienced by cancer survivors (Cho, 2012). Its use for prostate cancer has focused primarily on hormone treatment-related hot flushes (Lee et al., 2009; Cho, 2012). Some of these studies have investigated additional hot flush-related symptoms including distress, sleep problems, vitality, and quality of life (Harding et al., 2009; Beer et al., 2010; Capodice et al., 2011).

Harding et al evaluated the effects of NADA ear acupuncture on hot flushes experienced by men undergoing androgen-deprivation therapy for advanced prostate cancer (Harding et al., 2009). Providing ten sessions over ten weeks, they reported decreased severity of vasomotor symptoms in 95% of participants ( $n = 60$ ,  $p < 0.01$ ), as well as significant improvements on the Measure Yourself Cancer and Wellbeing (MYCAW) questionnaire. The primary concerns recorded on MYCAW all related to hot flushes and night sweats; secondary concerns included sleep disturbance, fatigue, depression/anxiety, insomnia, panic attacks, headache, and poor mobility.

The aim in our project was to provide a service that was open to any health concerns experienced by men with a diagnosis of prostate cancer, rather than restrict it to a single symptom.

To our knowledge, there is no acupuncture research that focuses on the wider health issues related to prostate cancer. Our previous acupuncture studies measured health issues beyond a single symptom, including assessing physical and emotional wellbeing in breast cancer survivors experiencing hormone treatment-related hot flushes and night sweats (de Valois et al., 2010; 2012b) and addressing wellbeing and quality of life of people with lymphoedema (de Valois et al., 2012a). In the current project, we wished to develop further the focus on overall wellbeing of cancer survivors.

### The NADA protocol

The NADA ear acupuncture protocol was developed in the 1970s for use in substance misuse detoxification. Since then, its application has expanded to a range of settings, from disaster relief and humanitarian aid to mental health to specific conditions including HIV/Aids and cancer care (Bemis, 2013). Although used internationally in many cancer centres, research has focused on its effects on cancer treatment-related hot flushes, as mentioned above (Harding et al., 2009; de Valois et al., 2012b).

Our aim at the Lynda Jackson Macmillan Centre (LJMC) is to integrate acupuncture into the National Health Service (NHS) as a treatment option to address complex health issues experienced by cancer survivors. To achieve this, it is necessary to explore acupuncture approaches that fit within the current constraints of the NHS. We are interested in approaches that are simple to deliver, require minimal training, and can accommodate potentially large numbers of patients for potentially long periods of time. In the UK, the lifetime risk of developing prostate cancer is one in eight, and survivors may experience consequences for many years after diagnosis (Cancer Research UK, 2014b).

We have chosen this standardised treatment because there is no diagnostic element and in the UK, treatment can be administered by healthcare professionals who are non-acupuncturists after a brief training. Delivery in a group setting facilitates treatment of up to 20 patients by one therapist in an hour and a half (Peckham, 2005). These characteristics enable low-cost treatment for potentially high volumes of patients, desirable features with the current strictures on NHS funding.

### The Project

#### **Aims and objectives**

This project was carried out at the LJMC, an information and drop-in centre associated with Mount Vernon Cancer Centre (MVCC) in Northwood, Middlesex, United Kingdom. The LJMC has a special interest in supportive care of cancer patients, and in researching innovative applications of acupuncture for cancer survivors.

The LJMC also has over ten years experience of using the NADA protocol in the management of breast cancer treatment-related hot flushes and night sweats (de Valois, 2006; Boon et al., 2015).

Charitable donations provided the opportunity to expand service provision to men, and we wanted to measure the effects of treatment to support further service development and to assess the potential for research. We chose to conduct a clinical outcomes study, which adopts a systematic approach to assessing safety and benefit to patients, whilst permitting usual treatment, and is a key starting point for most clinical research (Thomas and Fitter, 2002).

Consistent with our previous NADA research, we aimed to measure systematically the effects in the short and long term, to obtain a first measure of the approach, and to assess the suitability of delivery. Our main questions were:

- 1 What symptoms do prostate cancer survivors find troublesome?
- 2 Can the NADA protocol address these symptoms and improve wellbeing?
- 3 Is NADA treatment in a group setting acceptable to prostate cancer survivors?

This paper reports individual case studies from this group. Qualitative and quantitative (de Valois et al., In press) data will be reported separately.

### Participants

The service was open to men diagnosed with prostate cancer, who were under the care of an oncology consultant at MVCC. Patients needed to be six or more months post active treatment (surgery, chemotherapy, radiotherapy); if applicable, taking adjuvant hormonal treatment for six or more months; and experiencing symptoms and/or side effects of cancer or cancer treatments. They also needed to commit to completing a course of eight NADA treatments in a maximum of ten weeks.

Available funding enabled us to treat 20 men over a period from May 2013 to July 2014. As is standard practice at the LJMC for all patients attending for complementary therapies, men gave their written consent to receive treatment and to complete questionnaires.

### Treatment

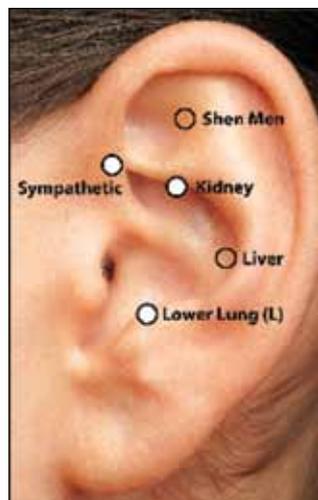
Men received weekly acupuncture treatment for eight sessions using the NADA protocol. This comprises bilateral auricular points Auricular Sympathetic, *Shen Men*, Kidney, Liver, with Upper Lung in the right ear and Lower Lung on the left (see Figures 1 and 2). Acupuncture needles were single-use, sterile, stainless steel needles 0.20mm diameter and 7mm long with plastic handles, manufactured by D&D, and packaged for detox protocols (10 needles per pack). Needles were inserted perpendicular to the ear surface, using a swift, single-handed motion with 180° rotation, to a depth at which the needle tip was supported in the cartilage. No further stimulation was applied; needles were retained for 40 minutes.

Figure 1



Photos courtesy of NADA UK

Figure 2



Treatments were delivered by a NADA specialist (TD), a holistic therapist who completed NADA UK detoxification training in the year prior to this project. She screened referrals and invited prospective participants to an intake interview. After obtaining written consent, she took a case history, based on the 'Ten Questions' used in Chinese medicine practice (Maciocia, 1994) to gain insight into the patient's symptoms and overall wellbeing. She also administered the outcome measures, including the MYMOP questionnaires (see opposite), and gave the patient a sample treatment so he could experience the needling.

At the subsequent treatments, the NADA specialist spent a few minutes in private with each patient to discuss any issues, and then escorted them to the treatment room where she inserted the needles. Needling was prefaced with a brief relaxation session, wherein the NADA specialist directed the patients' focus to their breathing and to becoming comfortable. This was instituted in response to patient feedback; due to the cancer site, the men experienced discomfort when sitting for long periods of time.

The brief private time (usually about five minutes) allowed patients to discuss any concerns about their symptoms or acupuncture. It also enabled the NADA specialist to recommend lifestyle changes, where appropriate. These were tailored to the individual, and could include advice on dietary habits, exercise, rest, managing stress, management of hot flushes, or referral to other supportive services.

Initial plans were to treat groups of five men in the Thursday morning clinics. This is the number of patients the LJM clinic rooms reasonably accommodate. However, this crowded the men and group size was reduced to four per session.

### Case studies

The following five cases were selected to illustrate a range of diagnoses, treatments, and consequences experienced by prostate cancer survivors, as shown in Table 1. They also demonstrate diverse and highly individual responses to NADA treatment.

In this paper, we refer to treatment outcomes monitored using the Measure Yourself Medical Outcomes Profile (MYMOP), which was administered before the first and eighth (final) treatments. MYMOP is a patient-generated, individualised questionnaire that aims to measure outcomes the patient considers most important (Paterson, 1996). Patients specify one or two symptoms that bother them most, and one activity that their problem makes difficult or prevents them doing. Our patients also completed written questionnaires at four and eighteen weeks after the end of treatment. The narratives below are developed from the treatment notes made by the NADA specialist. Quotations are taken from the questionnaires returned by the men.

The men represented in these case studies gave permission for their anonymised data to be published; Stan, Alfred, Petroc and Robert chose to be involved in the writing process of their cases. Petroc chose his own name; other names were chosen by TD, who also provided the NADA specialist's summary at the beginning of each case.

### Case study 1: Stan: "It calmed my nerves and general disposition"

#### NADA specialist's summary

Stan was a retired business man, who was very anxious and stressed, as hot flushes and bladder urgency prevented him from having a "normal life".

#### Prostate cancer history

Stan, 74, was diagnosed with early stage prostate cancer in 2003. Treatments included external beam radiotherapy<sup>i</sup> and low-dose rate brachytherapy<sup>ii</sup> during 2004, and hormonal therapy with a three-year course of the pituitary down-regulator<sup>iii</sup> goserelin (Zoladex®). Rising PSA levels<sup>iv</sup> in 2009 led to reassessment and restaging of his cancer in 2010. Pituitary down regulation with Zoladex® recommenced. Tumour flare, the sudden worsening

<sup>i</sup> External beam radiotherapy is the use of radiotherapy directed at the tumour using an external machine. Patients attend a hospital radiotherapy department for treatment, which is given daily (Monday to Friday) for four to eight weeks for early prostate cancer.

<sup>ii</sup> Low-dose rate (LDR) brachytherapy is the insertion of radioactive metal 'seeds' into the tumour, to slowly release radiation. The seeds are left in situ, and the radiation gradually fades away over six months. There is no risk to other people.

<sup>iii</sup> Prostate cancers depend on the hormone testosterone to grow. Pituitary down-regulators, also known as gonadotrophin-releasing hormone (GnRH) reduce the levels of luteinising hormone (which stimulates the testicles to make testosterone), which in turn lowers the level of testosterone. Examples of this type of therapy include goserelin (Zoladex®), leuprorelin (Prostap®) and triptorelin (Decapeptyl®).

<sup>iv</sup> PSA refers to Prostate Specific Antigen, a type of protein in the blood. Normal PSA levels rise with age; men with prostate cancer tend to have very high levels of PSA in their blood.

**Table 1: Summary of diagnoses, cancer treatments, MYMOP and other symptoms**

	<b>Stan</b>	<b>Petroc</b>	<b>Alfred</b>	<b>Robert</b>	<b>Paul</b>
Time since diagnosis	>10 years	>5 years	1 year	4 years	1 year
Cancer status	Localised	Localised, Hormone refractory	Local	Metastatic	Locally advanced
MYMOP Symptom 1	Hot flushes	Fatigue	Hot flushes	Shoulder pain	Lack of sex drive
MYMOP Symptom 2	Hip pain	Poor appetite	Dizziness	Constipation	Fatigue
MYMOP Activity	Walking, dancing	Keeping busy	Physical activity	Playing snooker	Playing tennis
Other symptoms (cancer related)	Anxiety Poor sleep Nausea Bladder: urgency, frequency Nocturia Constipation	Nocturia Bladder incontinence Hot flushes (minor) Weight loss	Poor sleep Headaches Muscle aches, pains Low esteem Depression Bladder irregularities	Poor sleep Feeling low Hot flushes (mild) Weight gain Poor appetite	Distress Hot flushes Poor sleep Dream disturbed sleep Digestive problems Memory/ concentration
Other health issues	Asthma Some allergies	Short-term memory loss	Hypothyroidism Low back pain Claustrophobia	History of musculoskeletal problems	Benign prostatic hyperplasia

of symptoms associated with the first injection, was managed with Casodex<sup>®</sup>, an anti-androgen<sup>v</sup> tablet. In 2011, his hormonal therapy was changed to three-monthly injections of triptorelin (Decapeptyl IM<sup>®</sup>). This successfully controlled the prostate cancer, and he was troubled mainly by side effects of cancer therapy.

### General health history

Having found acupuncture very effective for back pain in 2002, Stan was delighted when the urology research nurse referred him to the NADA prostate service. On MYMOP he specified 1) hot flushes and 2) hip pain as bothersome symptoms; walking and dancing were activities made difficult by these symptoms.

He experienced six to seven hot flushes during the day, and his sleep was disturbed by three incidents a night. These were accompanied by anxiety, a tingling sensation, and cold shivering. Constant pain in his hips, diagnosed as osteoarthritis, was managed with strong painkillers, including tramadol hydrochloride

and ibuprofen. Nausea, a side effect of this medication, was controlled with prochlorperazine maleate.

Bladder frequency and urgency meant Stan urinated six to seven times during the day, and that many times again during the night. Oxybutynin was helpful in managing this.

Constipation was a long-term issue, although he was managing some movement once a day. He did not experience headaches, or any problems with memory and concentration.

Stan was married and lived with his wife. He was a retired professional; however, he described his life as stressful due to business difficulties.

Stan had lived with the consequences of treatment that "take away the function of a man" for more than eight years. Initially, these had been a concern, but he was trying to be positive,

<sup>v</sup> Anti-androgens are hormonal therapy drugs that block testosterone receptors on the cancer cell surface. They may be used alone as hormonal treatment for prostate cancer, and are also used to prevent tumour flare, the flaring of symptoms that occurs with the first dose of a pituitary down-regulator. In this case, they are administered for the two weeks preceding, and one week following, the first dose. Bicalutamide (Casodex<sup>®</sup>) and flutamide (Chimax<sup>®</sup>, Drogehil<sup>®</sup>) are examples of anti-androgens.

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and had come to terms with the “no action”, especially as the treatment for cancer appeared to be working. His aim was to “carry on as normal a life as possible”.

Self-reported concurrent health problems included asthma and allergies to penicillin, paracetamol, and certain foods. Prescribed medications included tramadol hydrochloride and ibuprofen for hip pain, oxybutynin hydrochloride for urinary disorders, prochlorperazine maleate for nausea, cetirizine and piriton for allergies, and prednisolone for asthma, for which he also used a symbicort turbobaler.

### **Progress through treatment**

Stan found his first NADA treatment relaxing. However, he developed a chest infection during the following week, for which he was prescribed antibiotics. At his second treatment, he reported that his hot flushes had increased.

At Treatment (Tx) 3, he said that the hot flushes were very intense, although frequency had reduced to five during the day, and five at night. His energy was good, although he was tired from lack of sleep. The bladder control was “not bad”, with urgency being most intense in the morning.

At his fourth treatment, Stan described significant changes. Hot flushes had reduced in frequency to three to four at night. Accompanying sensations were also changing; “tingles” had disappeared, and the flushes were a “slow hotness”, which was not as bad as before. Constipation had required the use of Senokot, while bladder control was “not as brilliant” although he had more control over the urgency. Mood and energy levels were “very good”; he was feeling more relaxed and clear-minded. His wife had noticed that Stan had a more focused, positive outlook.

A poor night’s sleep affected Stan’s energy levels and mood when he presented for Tx 5. However, he reported that over the preceding week the flushes had improved further, and his energy levels had also been good. Bladder function was “very much improved”, with only one or two incidents at night.

At Tx 6, Stan described the hot flushes as “quite good”. They were very mild, unaccompanied by “tingling”, and reduced in frequency to three during the day, and two to three during the night. Energy and mood were good. More significantly, hip pain was now improving. Stan was not only able to walk more comfortably, he had also reduced his painkillers.

At his penultimate treatment, Stan reported further progress. Flushes came on slowly and were “very mild”. The week had

been good; he was relaxed, energetic, and his agitation had disappeared due to the changes in the flushes. His bladder was much “calmer”.

At his eighth and final treatment, Stan summarised the improvements he had experienced. Hot flushes were moderate now, and he no longer experienced the anxiety that had previously accompanied them. Bladder urgency was gone, and his bowel function had improved so that he no longer needed to use Senekot. He was sleeping better and able to get back to sleep easily when wakened by a flush. His hip pain was “reduced by 80%”; he was no longer taking tramadol and ibuprofen.

### **Long-term feedback**

Eighteen weeks following the end of the NADA treatments, Stan wrote:

“I feel much more relaxed and not much anxiety and stress pre and post hot-flash (sic). Still have hot flashes but without attending embarrassment. Acupuncture was [a] great experience - emotionally & psychologically.”

### **Summary**

Stan provides a study of a long-term survivor who has survived his diagnosis by over ten years. NADA treatment appears to have been beneficial to address the consequences of cancer treatment (hormone therapy related hot flushes), as well as symptoms of aging (osteoarthritis). It may be that bowel performance improved because Stan was able to reduce the pain medication, with which constipation is a side effect. Above all, this study illustrates the potential beneficial effects of NADA on emotional, as well as physical, wellbeing.

### **Case study 2: Petroc: “an overall improvement in feeling a state of wellbeing”**

#### **NADA specialist’s summary**

Petroc was a retired professional, who was very methodical in his approach to his cancer diagnosis. He had been implementing dietary changes to help manage and improve his symptoms.

#### **Prostate cancer history**

Petroc, 73, was diagnosed with prostate cancer five years previously in 2008, and had been managed with long-term goserelin (Zoladex®) since then. In 2012, rising PSA levels indicated that the cancer had ceased to respond to hormonal therapy.<sup>vi</sup> There was no evidence of metastatic spread, and in spring 2013 he received a course of radical external beam therapy and high-dose rate brachytherapy.<sup>vii</sup>

#### **General health history**

Petroc became interested in having acupuncture after attending

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<sup>vi</sup> At some point, prostate cancer will stop responding to hormonal therapy. This is known as hormone-refractory prostate cancer, or castration-refractory prostate cancer.

<sup>vii</sup> High-dose rate (HDR) brachytherapy involves placing tiny plastic catheters into the prostate gland, through which radioactive seeds are inserted for a set period of time and then withdrawn. At the end of treatment, the catheters are removed. No radioactive material is left in the prostate gland.

a talk given at the monthly Prostate Support Group. Although he was sceptical about acupuncture, he was persuaded that it was worth trying. His oncologist also said that sometimes it could be very helpful.

On MYMOP he specified 1) fatigue and 2) poor appetite as bothersome symptoms; keeping busy was the activity made difficult by these symptoms.

Petroc noticed fatigue particularly in the afternoon. If he sat down after lunch, he would fall asleep and find it difficult to get going. "I have been known to fall asleep at the table", typically at lunchtime. This had pre-existed his recent treatment, but had become much more noticeable of late.

His appetite had diminished after radiotherapy treatment. In general, he ate smaller portions, and was beginning to lose interest in food. When his wife was away, he could not be bothered to cook for himself. He lost weight during radiotherapy treatment, and had not returned to his pre-treatment weight. Foods he had previously enjoyed (like curry) were no longer appealing. In 2008 he had put himself on a dairy-free diet; he also reported a "minor allergy" to chocolate and soy milk.

Nocturia interrupted his sleep. Previously as frequent as six times a night, this was now down to once nightly. Bladder control was still problematic, as he experienced "leaking" before being able to reach the bathroom. He was considering doing pelvic exercises for this.

Hot flushes were a minor problem. Although he experienced a few on waking and before getting up in the morning, mostly they went unnoticed.

Petroc was concerned about his memory, and reported severe short-term memory loss. He was unconcerned about the sexual changes that prostate cancer and his treatment had made, as he and his wife had ceased to be sexually active prior to the diagnosis.

Self-reported concurrent health problems included minor allergies and minor genitourinary conditions. Prescribed medications included felodipine for high blood pressure and daily aspirin. As hormonal therapies are associated with an increased risk of osteoporosis, and in view of Petroc's dairy-free diet, Petroc also took a calcium supplement as recommended by his GP.

### Progress through treatment

Petroc found acupuncture relaxing, and tended to fall asleep during the sessions.

His treatment notes describe a gradual improvement of symptoms. Tx 5 is the first detailed account of specific changes. Petroc's energy was improving, and he was not sleeping as much in the afternoon. His appetite was returning, and he was now able to "eat a plateful". Sleep had also improved, and he could now usually manage to sleep for four hours at a stretch before needing to urinate. There were continuous small improvements in the flushes.

At Tx 6, Petroc was disappointed as he had been waking up in the night more frequently during the previous week. Consequently, he reduced his fluid intake at night. He reported having one flush during the week. Energy levels continued to improve, and he no longer had the same desire to sit and rest in the afternoon. He was eating bigger meals.

At his penultimate treatment, Petroc reported that he was managing to sleep through the night. His mood had brightened, and he no longer felt the need for a sleep in the afternoon. He also noticed improvements in his ability to walk.

At his final session, Petroc said that he was "overall very satisfied" with the results. Energy, appetite, and mood had improved, and his hot flushes were virtually unnoticeable. The "leaky" bladder, which he said should have been one of the symptoms on the MYMOP, had improved and was now "more or less under control".

While Petroc had enjoyed the treatments and noticed benefits, he could not be sure that they were due solely to the acupuncture, as his symptoms had been "generally improving anyway".

### Long-term feedback

Nevertheless, at four weeks after the end of treatment he wrote that "over treatment there was a continuing improvement", providing the following details:

"The nocturia is now down to one per night on an increasingly regular basis.

"There was a sudden and noticeable improvement in appetite (previously I ate at regular times, but insisted on small portions). Now my appetite is back to normal and the need for small portions has disappeared.

"Fatigue. Previously I usually felt a desire to sit down and relax early in the afternoon (when I usually fell asleep). Now I am increasingly able to 'keep going' until supper time (though I do still fall asleep if I do relax).

My urge incontinence (noticeable mostly at night) began to diminish during the treatment and is now almost on the point of disappearing."

<sup>viii</sup> Some studies have reported a relationship between cancer supplements and fatal prostate cancer. However, in a recent review, the World Cancer Research Fund International concluded that the evidence for any links between high calcium intake and increased risk of prostate cancer is limited. (See World Cancer Research Fund International/American Institute for Cancer Research Continuous Update Project Report: Diet, Nutrition, Physical Activity, and Prostate Cancer. 2014. Available at [www.wcrf.org/sites/default/files/Prostate-Cancer-2014-Report.pdf](http://www.wcrf.org/sites/default/files/Prostate-Cancer-2014-Report.pdf)).

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Petroc's feedback at 18 weeks records that these improvements remained. The lack of appetite had "largely gone away", flushes were "now fairly rare", and urinary incontinence was "increasingly under control", although he was not "home and dry" yet. It was also rare for Petroc to need to get up more than once a night. The fatigue remained a problem in the afternoons unless Petroc was "fully occupied doing something engaging".

Petroc also commented on the specifics of the NADA treatment, noting that he didn't like the "twinges of pain on insertion of some (sic) needles". Of the group sessions he said, "I enjoyed the company of other participants", and found it useful to have "a relaxing morning away from my usual activities" even though he "invariably fell asleep for most of the session".

### Summary

Petroc supplied his own summary. For him, NADA treatment "assisted the steady slow improvement of various side effects". Nevertheless, he acknowledged that a particular benefit "was an overall improvement in feeling a state of wellbeing."

### Case study 3: Alfred: "I am back to feeling my 'old' self" NADA specialist's summary

Alfred was very friendly and open about his symptoms. He was willing to give ear acupuncture a go as he was desperate to have some control over his symptoms of pain and hot flushes.

### Prostate cancer history

Alfred, 65, was diagnosed with low risk localised prostate cancer in 2012, a year prior to starting NADA treatment. Although he was a candidate for active surveillance<sup>ix</sup>, he opted for definitive therapy. However, an enlarged prostate gland ruled out brachytherapy as a treatment option. He had had a single implant of goserelin early in 2013, and was transferred to a 'watch and wait'<sup>x</sup> policy.

### General health history

Alfred suffered greatly from treatment-related hot flushes, and was referred for acupuncture by his oncologist. On MYMOP he specified 1) hot flushes and 2) dizziness as bothersome symptoms; physical activity was made difficult by these symptoms.

He experienced up to four to five hot flushes during the day and at least eight to ten during the night. He often had to "step outside to cool down". "Itchiness" accompanied these incidents, and could occur anywhere on the body. The flushes were "very upsetting" when they were severe.

Dizziness occurred on standing and when bending down.

Sweats interrupted his sleep and he did not nap during the day. He experienced aches and pains "like a viral achiness". Urination had improved after a procedure to widen the urethra in June that year, although he still experienced some urgency. Nocturia was variable, occurring two to three times some nights, while other nights he did not go at all.

Bowel function was "okay". He experienced headaches, for which he tried to avoid taking medication, and controlled them by drinking more water and taking some natural remedies. He had a history of migraines, but these were now infrequent. A low back injury contracted at the age of 16 sometimes played up (he had acupuncture treatment for it in 1999). He had no problems with memory and concentration, and he reported no sexual concerns.

Emotionally, he was inclined to keep his feelings to himself. He sometimes felt inadequate because of lack of work, and not being able to do things as before.

Self-reported concurrent health problems included hypothyroidism (levothyroxine sodium was prescribed for this), and depression, genitourinary conditions, musculoskeletal problems, sleep, dizziness and hot flushes. He also experienced claustrophobia.

### Progress through treatment

Alfred experienced few benefits until Tx 4, when night flushes reduced by half. There was no change in the day flushes. Sleep was improving, he was getting "fairly good nights", and was able to get back to sleep more easily if he woke. He was very short-tempered, and did not have the patience he felt he should have.

At Tx 5 he reported a "bad week"; flushes had worsened, especially in the evening when he was experiencing five to six incidents. He was still easily irritated, and used counting to ten to calm down. However, some of his joint and neck problems were improving, and he didn't "feel 90 any more".

Tx 6 saw significant improvement in hot flushes. Alfred was having "fewer and fewer", with frequency reduced from eight to two to three per night. Itching was returning, although at this stage he was not scratching, and did not need to apply any soothing creams. His energy, too, was coming back, sleep was improving, and he described his bladder function as "normal".

At his penultimate treatment, the hot flushes had remained stable. He was sleeping through the night, his energy had increased, and his aches and pains had reduced to a small patch on the right side of the neck.

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<sup>ix</sup> Most low-grade, early-stage prostate cancers are likely to remain asymptomatic. Active surveillance means periodic monitoring (by digital rectal examinations and PSA blood tests every one to three months) to monitor whether the tumour is growing.

<sup>x</sup> Watch and wait, or watchful waiting, is used for slow-growing prostate cancers. The doctor monitors the patient for any new symptoms. Regular blood tests monitor PSA levels, and there may be digital rectal examinations.

At his final treatment, Alfred reported that his "hot flushes were 90% better, energy 60% better, aches and pains 70% better". Sleep continued to improve, and his mood was getting back to where he was pre-diagnosis. He had a "feeling of wanting to do things"; he was "feeling good".

At the end of treatment he wrote that the sessions had been very beneficial: "they have helped me with my hot flushes and my sleeping" and he was "able to move without pain".

### Long-term feedback

At four weeks after the end of treatment, Alfred wrote:

"Hot flushes have practically gone allowing me to sleep virtually through the night. My appetite has returned and the body aches and pains have decreased."

At 18 weeks after the end of treatment, Alfred confirmed that the itching, dizziness, and hot flushes had ceased. Without the acupuncture he was "sure my symptoms would have lasted much longer". When commenting on what the experience of acupuncture affected most in his life, he wrote:

"Quality of life, was feeling very 'down' and tired before the treatment ... As I have said my quality of life has improved dramatically and I am back to feeling my 'old' self."

### Summary

While many of Alfred's bothersome symptoms might be expected to improve normally, NADA treatment provided an important boost, speeding his recovery, and helping him to regain his former sense of self. As well as improving physical health, it appears to have alleviated the distress triggered by his diagnosis and treatment.

### Case study 4: Robert: "It helped me relax and come out on a high"

#### NADA specialist's summary

Robert was seeking relief for severe back and shoulder pain. It was necessary to find a comfortable chair for him to sit in when having acupuncture, as he was very uncomfortable in the clinic chairs.

#### Prostate cancer history

Robert, 61, was diagnosed with locally advanced prostate cancer nearly four years previously in 2010. Treatments had included a laparoscopic radical prostatectomy<sup>xi</sup> later that year, followed by external beam radiotherapy. Hormonal therapies included a previous course of leuporelin (Prostap®), and Robert was currently treated with goserelin (Zoladex®). Progressive disease was confirmed in autumn 2013, and treated with the anti-androgen bicalutamide (Casodex®) until spring of 2014.

Shortly after commencing the NADA treatment in spring 2014, metastatic spread to the spine was confirmed.

#### General health history

Robert had found acupuncture effective for back pain ten years previously. He had heard that ear acupuncture could be beneficial, and his oncologist had referred him for the NADA sessions. On MYMOP he specified 1) shoulder pain and 2) constipation as bothersome symptoms; playing snooker was the activity made difficult by his symptoms.

Robert experienced extreme pain in his right shoulder. The possibility of metastatic cancer was being investigated. He also experienced mid and lower back pain, which was eased by lying down. Constipation was also being investigated; a colonoscopy revealed a possible small bowel obstruction that was resolving. It also confirmed an existing diagnosis of radiation proctitis, a long-term consequence of radiotherapy that causes symptoms such as feelings of wanting to strain, rectal bleeding, and mucous discharge.

Robert managed at least seven hours sleep a night, waking once or twice to urinate. Previously able to get back to sleep easily, the recent onset of shoulder pain made it more difficult. Hot flushes were mild and infrequent. He described his digestion as "okay", although his appetite had recently diminished slightly as medications upset his stomach. His energy levels were "not too bad"; Robert was physically active and walked most days. He wanted to lose some weight. Memory was fine, although his attention levels reduced when stressed.

Emotionally he was "okay at the moment", although a few days previously he had been feeling low. St John's Wort was helpful, now and in the past. Robert was separated from his wife and lived alone. He had no sexual concerns at the moment.

He reported no concurrent health problems. He had sustained fractures to his right shoulder a few years previously, and to his right patella 25 years ago in a motorcycle accident. He had been having physiotherapy for many months during the previous year. Prescribed medications at the time of starting NADA treatment were ibuprofen (3/day) and paracetamol (4/day) for pain control.

#### Progress through treatment

Robert enjoyed his first NADA treatment, and valued "being peaceful, relaxed. Comfortable."

At Tx 2, he had been struggling with lower back pain. Shoulder pain was "not too bad now" after five palliative radiotherapy<sup>xii</sup> sessions.

<sup>xi</sup> Keyhole surgery to remove the prostate gland.

<sup>xii</sup> When prostate cancer spreads to the bones, radiotherapy may be given to the affected bone or area to control the pain. This may be given as a single treatment, or as a short series of treatments.

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His sleep was still “okay” in spite of getting up once or twice a night to urinate. At the end of the session, his lower back pain was relieved, and he was “calm, relaxed, peaceful”.

At Tx 3, he reported that the back pain had been relieved for a day and half after the previous session. Although his sleep was good, his moods had been variable as he was still experiencing pain.

At Tx 4, Robert’s feedback from the previous week was that he was able to “walk normally”, much “faster and freer”. This had lasted for a day. He had felt calmer and brighter. Emotionally, he was a bit better, and had arranged to stay with a friend during his next series of five radiotherapy treatments to the lower back. He confirmed that the cancer had spread to his spine, and that he wished to continue with acupuncture. Robert arrived at this session with considerable shoulder pain, and had to take painkillers before he could settle down to receive treatment. He did manage to relax and be comfortable.

Robert completed radiotherapy prior to his fifth NADA session. He was still in a great deal of discomfort; however, at the end of the session he was “very warm, calm, peaceful, relaxed”.

At the sixth session, Robert said the benefits of the previous treatment had been long lasting. He had felt fine and had been able to walk more comfortably and faster. However, his mood at the moment was not good. He had tripped and jolted his back, causing more pain that had not settled, and he was unable to relax. During treatment, he drifted off to sleep, and awakened feeling “peaceful” and pain-free.

The following day, he was feeling more relaxed and the pain was manageable. Unfortunately, the lower back pain worsened during the week, and he was taking Oramorph® (morphine in syrup form) for pain control. He slept very badly the night before his penultimate NADA treatment, and arrived an hour late. At the end of the session he was “relaxed. Peaceful, calm and relaxed”.

Robert presented for his last NADA session “feeling okay”. His lower back pain was manageable after a change in medication, and now his back just felt a “bit stiff”. The previous NADA session had given him a lot of relief; he had been able to do more and went out for walks. He had noticed that twitches and spasms were developing in his arm and body. Sleep was “okay”, and the NADA specialist noted that his mood was not as bright as it had been.

Robert found that the acupuncture sessions had “exceeded my expectation”, helping him to manage pain and relax. He summarised the benefits:

“It has helped me with mobility, pain control, and improved my mood. Hot flushes were not a problem as they were very few. The biggest benefit is that it has helped with relaxation. I am relaxed and on a ‘high’ after the sessions.”

#### **Long-term feedback**

At four weeks after the end of treatment, Robert again noted that:

“After the treatment I was always feeling very relaxed and on a high which helped me to do things for a day or two ... I notice that I didn’t feel tired so much.”

At 18 weeks after the end of treatment, he wrote that the benefits had been long lasting:

“The ear acupuncture treatment continued to help me with the side effects and still does ... it was an eye opener and [I] thoroughly enjoyed the course.”

#### **Summary**

Robert commenced NADA treatment just as cancer progression was diagnosed. His comments confirm that having acupuncture helped him at a challenging time in his life. While it might be difficult to attribute how much the radiotherapy or NADA was responsible for relieving his pain, it is clear that acupuncture helped with relaxation and improved his mental and emotional wellbeing.

#### **Case study 5: Paul: “Hearing other people’s stories makes me feel more anxious”**

##### **NADA specialist’s summary**

Paul was very anxious, and looking for an improvement in his sex drive and weight.

##### **Prostate cancer history**

Paul, 60, was diagnosed with high-risk locally advanced prostate cancer one year previously in 2012. This was managed with injections of the pituitary down regulator goserelin (Zoladex®). Bicalutamide (Casodex®) tablets were taken prior to and following the first injection to manage tumour flare. A course of external beam radiotherapy followed a few months later. Tamsulosin was prescribed for benign prostatic hyperplasia (BPH).<sup>xiii</sup>

##### **General health history**

Paul was an urgent referral to the NADA service from his oncologist and the Urology Research Team. On MYMOP he specified 1) lack of sexual desire and 2) fatigue as bothersome symptoms; playing tennis was the activity he stated was affected by his symptoms.

Prior to diagnosis, Paul had enjoyed an active sex life. Since then, he had made love twice in six months, but now had no desire for

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<sup>xiii</sup> BPH is a non-cancerous condition common in men over the age of 50. A benign enlargement of the prostate gland, its symptoms are similar to those of prostate cancer and include difficulty passing urine, frequent urination, nocturia, pain when passing urine, and (unusually) blood in the urine.

sex. He had used tadalafil (Cialis®) to address erectile dysfunction about three times in the previous five months, but disliked using this approach. Lack of desire caused him extreme distress.

Hot flushes were less debilitating than they had been, and were occurring four to six times during the day. These were sweats about the waist, lasting from one to five minutes. Night incidents were difficult to assess; however, he woke up with a sweat and the need to urinate.

Sleep was always disrupted, which he attributed to tiredness. He tossed and turned all night, and had “weird” dreams. He also suffered chronic digestive problems: there was a family history of IBS, and Paul noticed that certain foods and stress caused bloating. Cancer medication had caused weight gain, and he had started to diet. He experienced nightly headaches, which he associated with his sleep problems. Memory and concentration “wavered a bit”, but was not considered to be a problem.

Paul had initially felt “suicidal” when diagnosed. His wife had helped to put things in perspective, and he had been able to start to cope with it. Nevertheless, he felt upset for his wife and family. Physically, he felt “like an old man”, with aching joints and being unsteady on his feet. He did not have sufficient energy to exercise.

Self-reported concurrent health problems included fatigue, breathlessness, hot sweats/night sweats, swollen fingers, and aching Achilles tendons first thing in the morning. Prescribed medications included tamsulosin hydrochloride (Pinexil PR®) for BPH, and metoclopramide hydrochloride to relieve stomach upset.

### Progress through treatment

Paul commenced NADA treatment at a very difficult time in his life, as he had just been made redundant and was working his notice. This happened to coincide with a period of very hot weather.

Paul’s NADA treatment notes are sparse, as much of the discussion about sexual matters remains confidential between himself and the NADA specialist.

After his second NADA session, Paul had more energy and “felt the best I’ve felt for at least a year – felt pretty good in myself.” This lasted all day and into the beginning of the following day. Sleep remained disrupted, and the sweats were now “the worst thing”.

A holiday break after Tx 3 left a two-week gap in treatment. Paul presented for Tx 4 feeling “worse than before”. Hot weather over the ensuing four weeks found his flushes continuing to worsen, with no apparent improvement in any other symptoms.

At his final treatment, Paul reported no changes. He had resumed taking cyproterone acetate (Cyprostat®) to manage flushes. He

had stopped taking this before commencing acupuncture as the medication had caused breathlessness, palpitations and cramps in his hands. Now taken at a low dose, these side effects were less bothersome, but Paul felt he was a bit “out of puff”. The sweats were still disturbing his sleep, waking him four to five times at night. His libido remained the same.

This last treatment occurred the day before his final day at work. He thought that his mental attitude might have improved during the NADA sessions; however it had been a difficult time with a lot happening with regard to redundancy, retirement, and planning for the future.

Paul also disliked the group sessions. He was “not a lover of group therapies”, and “hearing other people’s problems makes me feel anxious”. He often avoided the group by arriving late for his appointments; when possible, the NADA specialist treated him in a separate room. Nevertheless, Paul valued the service, and at the end of treatment, he wrote that it was:

“Comforting to come into a service regularly. A positive focus to have regular contact with the therapist.”

### Long-term feedback

At 18 weeks after the end of treatment, Paul wrote:

“I found that having the treatment with a group was not a nice experience due to distractions from other patients (snoring, talking, etc). I did find that on my second treatment, I felt very good afterwards, but this did not continue sadly.”

Nevertheless, Paul was positive about acupuncture, and said he would recommend it to others, saying:

“Just because this has not worked for me I can see no reason for it not working for others.”

### Summary

Paul was at a difficult transition point in his life when he commenced NADA treatment. Redundancy and sexual difficulties, issues that deeply affect self-esteem and self-image, were not helped by the intractable bothersome consequences of cancer treatment. Disliking the group therapy approach, Paul was not able to benefit from aspects of NADA treatment that many patients find supportive.

### DISCUSSION

These cases are valuable illustrations of the complexity of prostate cancer and its treatments. They encompass a range of cancer diagnoses, from recently diagnosed early stage disease (both low and high risk), to long-term survivorship, to advanced metastatic disease. These five studies also demonstrate a wide range of cancer therapies, and the associated consequences of prostate cancer and its treatments.

Although a standardised treatment, NADA ear acupuncture appears to be beneficial in many ways. Responses remain highly

individualised, with most patients reporting positive outcomes. NADA treatment was not effective for everyone, nor was group treatment to everyone's liking. Even so, the men expressed appreciation for the level of care, as well as continuity of care by the same practitioner. These aspects have been identified as being important for the supportive care of men diagnosed and treated for prostate cancer. (King et al., 2015)

In conclusion, this small exploratory study provides sufficient indication of potential benefit to warrant further research.

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- Acknowledgements**  
A legacy donation to the Lynda Jackson Macmillan Centre (LJMC), and a donation from the Hale Lodge of Middlesex (No.5141) made this project possible. Thank you to the men who participated in this project; and to the following staff of the LJMC: Pam Thorpe and Jill Preston, complementary therapy service co-ordinators; Teresa Young, research co-ordinator; Diane Back, data administrator. Also to Rachel Peckham MSc LicAc MBACC, formerly of NADA UK, for her continuous support of our NADA projects.
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