

## Oncology and Patient-centred Care

### The Effect of Time on Cancer Control

G Jones

**Objectives:** Philosophically, time is a complex concept in reality, measurement and perception. In cancer control, time must be understood and can be managed.

**Methods:** To develop understanding of how time intersects cancer control, established and potential concerns about time were mapped from before a cancer diagnosis into survivorship. Each intersection with time was assessed to clarify concerns and to identify justifying evidence and obtain any quantification.

**Results:** Risk stratification by history along with secondary temporal forecasting of probabilities of future cancer are relevant to taking actions to reduce hazard and engage in a relevant pattern of screening methods for early detection. After a cancer diagnosis, biological time which includes tumour doubling times and cell-cycle times, and clinical time which includes the pace of work-up and treatment are clear issues. Other relevant aspects of time are: time discounting in patient decision-making and informed consent; temporal patterns as with chronobiology and radiobiology, affecting cancer control and adverse events; and time deployed and efficiently used by providers for high capacity for the number of clients and patients who can be managed by a given team. All areas are under active inquiry and research to optimize cancer control.

**Conclusions:** Managing time appears to be a strategic focus for providers and delivery systems to improve cancer control. Parts of time optimization are inexpensive (eg patient navigators, electronic tracking and monitoring) and can produce benefits quickly, with low toxicity and cost, particularly in less developed healthcare systems such as those in the Caribbean.

### Modifiable and Non-modifiable Risk Factors for Breast Cancer in Women Attending the Oncology Centre at Princess Margaret Hospital and Family Medicine Clinics at Community Clinics in New Providence, The Bahamas

M Wallace-Bain, S Pinder-Butler, M Frankson, F Williams, D Curling

**Objectives:** The Bahamas has a high incidence and mortality of breast cancer. The aim of this study was to assess the basic epidemiological profile and risk factors of breast cancer in women attending Oncology and Family Medicine clinics in New Providence, The Bahamas.

**Methods:** Using a case control study design, 150 controls and 199 cases were surveyed using convenience sampling. A self-administered questionnaire was utilized to assess socio-demographic, modifiable and non-modifiable risks for breast cancer. A current version of IBM SPSS Statistics application software was used for analysis.

**Results:** Overall, the mean age of participants was 58.98 ( $\pm 11.91$ ) years old; 60.83 ( $\pm 0.83$ ) years among the controls, 57.59 ( $\pm 0.92$ ) years among cases. Three hundred and twenty-five (93.4%) were Bahamians, 338 (97.4%) were black and 122 (35.1%) were married. Menopausal status, family history of breast cancer, and previous history of breast cancer were non-modifiable factors which were found to be significantly associated with being a case, while inadequate walking and aerobic exercise were modifiable statistically significant factors. Proportions statistically significantly different by controls *versus* case groups were menopausal status, family history of breast cancer previous history of breast cancer and physical inactivity. Multivariately, the interaction between height and walking (OR = 1.092,  $p = 0.028$ ), was the only identified statistically significant risk factor in this study.

**Conclusion:** The commonly proposed risk factors identified in the literature were not found to be the case in this local Bahamian population. Additional studies are recommended to strengthen evidence-based medical efforts in planning to fight the breast cancer epidemic.

## **Metastatic Breast Cancer to the Eye – A Rare Case Report**

*A Major-Bastian, D Russell-Hermanns, T Salvador*

We report a rare case of metastatic breast cancer to the eye. A retrospective review of the patient's medical records and review of the literature. A 58-year-old Afro-Caribbean woman with hypertension and cardiac arrhythmia presented with clinical findings suggestive of orbital cellulitis. The patient was not forthcoming with the details of her medical history initially. Additionally, she had denied any constitutional symptoms on systemic review. After not responding to antibiotic therapy, she had repeat imaging and the diagnoses of orbital pseudotumour, thyroid eye disease or orbital lymphoma were entertained. A biopsy was recommended for confirmation; however, the patient refused and was lost to follow-up. She presented weeks later with significant deterioration of vision in the right eye. An enucleation with pathological evaluation was advised. She refused and requested referral overseas for a second opinion. There, she underwent an orbitotomy and evisceration of the right eye. The pathology report revealed cytokeratin and estrogen receptor-positive carcinoma consistent with metastasis and breast primary. A strong family history of breast cancer, prostate and ovarian cancer was subsequently confirmed. Cancers may manifest in the eye in many ways mimicking common eye diseases. This rare case of metastatic breast cancer is one of few reported in the literature. It illustrates that many life-threatening conditions may be discovered through a basic eye exam. Furthermore, it points to a possible need for the inclusion of baseline eye exams in the oncology work-up of breast cancer patients.

## **Parental Knowledge, Attitudes and Intention towards the Human Papilloma Virus Vaccination of Children aged 9–17 years in Public Health Clinics on New Providence Island, The Bahamas**

*T Hanna, G Holder, C Conliffe, M Frankson, D Halliday, R Butler, C Ragin*

**Objectives:** To evaluate parental knowledge attitudes and intention toward the human papilloma virus vaccination of their children between the ages 9–17 years.

**Methods:** This research was a cross-sectional study design in which 356 participants 18 years and older were surveyed from selected New Providence Public Health clinics using a previously validated 52-item questionnaire. (IBM SPSS Statistical analysis application software package (IBM SPSS, v. 23) for data analysis.)

**Results:** Of the 356 participants, the median age was in the 30–39 (IQR: 18–29, 40–49) years. Regarding knowledge of the natural history to HPV the median per cent of correct responses among all participants was 50.0% (IQR: 7.1%, 85.7%). Regarding probable vaccination of their daughters, 182 (51.3%) said yes, 38 (10.7%) said no, 135 (38%) did

not know and one (0.3%) abstained. With respect to sons, 174 (49.2%) said yes, 37 (10.5%) said no, 143 (40.4%) did not know and two person abstained. Knowledge of HPV and its related illness seems to have the strongest influence on attitude toward the HPV vaccine.

**Conclusions:** There is a need for ongoing public health education campaigns. The valiant efforts to provide this vaccine at no cost to teens in The Bahamas will pay off in dividends by resulting in a decreased incidence of HPV related cancers which can lead to death and HPV related warts.

## **Implementing the New Standards of Care for Treating Metastatic Prostate Cancer in The Bahamas, is Unaffordable**

*R Roberts, C Ragin, C Brown, C Sin-Quee*

**Objective:** We reviewed a cancer pathway (CP) for advanced prostate cancer (PCa) to determine the affordability to treat, if the new standards of care for treating metastatic and castration resistant prostate cancers were implemented in The Bahamas.

**Methods:** In a solo urology practice for the first six months of 2018, all new cases of PCa diagnosed were reviewed, retrospectively. On introducing a CP for treating PCa and applying the cost factor for the new standards of care recommended, the cost of care to treat patients presenting with metastatic PCa was computed.

**Results:** Twenty-four patients met our explicit algorithm for prostate biopsy; 21 were confirmed with cancer; average age 65 years. Of these, 14 were in the high, seven intermediate and none were in the low-risk group. Of the 14 high-risk, eight had prostate specific antigen levels > 100 ng/mL, 3 > 500 ng/mL and 2 > 1000 ng/mL. Of this high-risk group, nine had bone scans of which three were conclusive for metastasis. A CP for the treatment of metastatic PCa projecting for an overall survival increase from approximately, 9–18 months to > 30 months on implementing the new standards of care, is estimated in excess of \$150 000 US to \$250 000 US per patient at five years post diagnosis for hormonal treatment alone, depending on the choice of hormonal agents.

**Conclusion:** The incidence of advanced PCa in The Bahamas is high. If the new standards of care to treat advanced prostate cancer are implemented, The Bahamas cannot afford to treat this condition. Prevention and early detection must be the mandate for curbing the burden of this disease in The Bahamas.

## **Examining diversity of cancer risk factors and risk reduction behaviours among US-born Blacks, Caribbean and African Immigrants**

*C Ragin, E Blackman*

No abstract