

No 194 June - July 2018

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COVER PHOTO: Best- dos Santos Public Health Laboratory

NOTES FROM THE EDITOR'S DESK

The Many Faces Of Health Funding

The nature of health care in Barbados has been changing over the past decades with longer life spans and greater prevalence of chronic illnesses, primarily hypertension and diabetes mellitus, being at the fore front. The increased need for treatment of these ongoing illnesses and their associated long-term and tertiary care has placed tremendous demands on the health care system.

And, as the ageing population increases, it is likely that there will be a need for additional revenues for health systems.

Irrespective of the source, money takes different routes on its way from consumers of health care to providers through government (taxes), private insurance companies (premiums), and out-of-pocket payments. Ultimately, the people of Barbados pay all health care costs.

The recent re-imposition of a health levy by the current administration is seemingly an effort aimed at augmenting the government's traditional annual health care budget that has been on the decline for several years, notwithstanding increasing health care costs here and just about everywhere else; a truly global phenomenon.

Is the proposed method of collection a useful exercise, given the vast sums owing to the National Insurance Scheme by employers including government institutions? Undoubtedly, improving the efficiency of revenue collection will increase the funds that can be used to provide services.

But, is consideration being given for controlling health care costs as well? Do we really know what the major drivers of the rise in health care spending are? How can we make health care more affordable without limiting access to necessary care? Moreover, what is the responsibility of individuals in adopting and maintaining healthy lifestyles, and in so doing reduce the cost of their care?

The World Health Organisation notes that "no country fully achieves all the universal health coverage objectives, for one hundred per cent of the population, for one hundred per cent

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EDITORIAL... cont'd

COMMENTARY

of the services available, and for one hundred per cent of the cost – and with no waiting lists. But it does believe that every country can improve efficiency, reduce waste, and increase value from its health spend.”

Controlling health care expenditures requires a solid understanding of the factors that are driving the growth in spending. But, are we suitably equipped for this? This is not a rhetorical question.

A BRIEF OVERVIEW OF PALLIATIVE CARE IN BARBADOS



Dr O'Neall Parris
M.D MD, MPH, FAAP

Introduction

Palliative care as defined by the World Health Organisation (WHO)¹ and modified by the Worldwide Palliative Care Alliance (WPCA)² and others, seeks to improve the quality of life of persons and their families facing severe illness. Ideally, it anticipates, prevents and treats physical (pain) as well as psychosocial suffering from any illness, malignant or otherwise, using a family-centred holistic multidisciplinary team approach. Palliative care is not age or disease specific, nor is it limited to any stage of an illness. Therefore, it is relevant for any person, at any age, for any disease, benign or malignant, at any stage of illness, and can occur in the context of curative treatment. Palliative care delivered at end of life in various settings (home, institutions, standalone) constitutes hospice.

Palliative care is considered a human right¹ and there have been a number of WHO and United Nations (UN) resolutions and statements encouraging member states to integrate palliative care into both their cancer and non-cancer programmes⁴⁻⁶. However, access to palliative care is variable worldwide and is often largely dependent on geography and economics. Palliative care development mapping categorises countries on the basis of their level of palliative care⁷. Group 1 countries have no known activity, Group 2 countries are engaged in capacity building, Group 3 countries have emerging palliative care options and Group 4 countries have preliminary or advanced integration. A 2013 paper by Lynch et al placed Barbados in the Group 3a category⁸.

Barbados Palliative Care Needs Assessment Project (BARNAP)

In 2009, the government of Barbados, recognising that the ageing of the population and the increasing incidence and burden of non-communicable diseases (NCDs) would inevitably lead to an increasing need for palliative care services with its attendant financial burden, commissioned the Barbados Palliative Needs Assessment Project (BARNAP) to assess the palliative care needs of the country in order to inform an action plan based on objective data. The 2012 BARNAP report made by palliative care expert Dr Natalie Greaves, found that by 2030, 86.3% of all deaths in Barbados would be due to NCDs of which 25.5% would be attributable to cancer, 32.6% to cardiovascular diseases, and 28.3% to other NCDs. The report also cited that 73.6% of the 2,401 deaths in 2004 – 2006 would have needed palliative care⁸. However, the percentage of cases that received such care is unknown.

Current Status of Palliative Care in Barbados

Palliative care, predominantly pain management, is provided in the 'cancer' ward (C12) at the Queen Elizabeth Hospital and at geriatric hospitals and nursing homes. However, all the elements of a comprehensive holistic approach are not yet in place but are expected to evolve with time. A Pain Management Committee has been established to regulate palliative opioid use.

Private sector palliative care is largely the domain of the Barbados Association of Palliative Care (BAPC) which was founded in 2011. From 2014 through the end of 2017, BAPC has provided home palliative care for 114 patients, mostly with cancer². Financial support for BAPC comes from charitable donations and fundraising activities. There is no government subvention. Referrals come from the Cancer Ward, private medical practitioners, other health care professionals, family and friends.

Some medical practitioners in Barbados who work in the private practice setting provide palliative care services in the private setting and nongovernmental organisations (NGOs) such as Cancer Support Services (CSS) and the Barbados Cancer Society (BCS) are activists for home palliative care.

Whilst health insurance carriers are not explicit in providing a specific palliative care benefit, it is of note that at least two

COMMENTARY... *cont'd*

carriers, upon the recommendation of the patient's physician, now cover intensive home nursing care, under which home palliative care falls, are willing to. Some Barbados medical practitioners in private practise provide palliative care services in the private setting and nongovernmental organisations (NGOs) such as Cancer Support Services (CSS) and the Barbados Cancer Society (BCS) are activists for home palliative care.

While health insurance carriers are not explicit in providing a specific palliative care benefit, it is of note that two carriers, upon the recommendation of the patient's physician, now cover intensive home nursing care, under which category home palliative care would fit.

Discussion

The BARNAP study highlighted the unmet need for palliative care in Barbados. Barriers to expansion include: financial constraints, the reluctance of Barbadians to confront squarely issues of death and dying, lack of training in palliative care principles of most medical practitioners, nurses and other health care providers, absence of a health insurance benefit for palliative care, and absence of a hospice option, either institutional or standalone.

To comprehensively address the palliative care needs of Barbados, the BARNAP report recommended a mixed model delivery system that utilised generalist and specialist palliative care in the community and at the Queen Elizabeth Hospital. A standalone hospice was also recommended with the report finding "... a social preference in Barbados for a standalone in-patient hospice..."

Specific strategies from the BARNAP study and the general palliative care literature include:

- an explicit government declaration of a national policy for palliative care to be shared with the population; public education activities by government and relevant NGOs
- making palliative care training an integral part of the curriculum in medical, nursing and other health professional schools
- targeting of Barbadian medical practitioners, nurses and other relevant providers for education activities related to palliative care
- specific training of first level generalist providers such as family doctors and nurses to provide basic palliative care at the community level, especially the polyclinics
- training and utilisation of palliative care specialists for acute hospital care, inpatient hospice, nursing home

outreach and as a resource for generalist providers; government support of cancer advocacy NGOs with subventions to expand home palliative care services

- working with insurance companies to include a hospice benefit in their medical policies.

With respect to a standalone hospice, the current demographic profile of an ageing population, smaller nuclear and extended families, with fewer available relatives to assist with family care because of the constraints of work and the impact of emigration, make the establishment of such, an important component of a comprehensive palliative care strategy. There is currently a private sector initiative to establish Barbados' first standalone hospice. This joint venture between two local cancer advocacy charities, the Barbados Association for Cancer Advocacy (BACA Barbados) and the Living Water Community is for a 14 bed 9,000 square foot facility at St. David's, Christ Church. All approvals have been obtained and the facility should be ready for use in 2019. Strategies for ongoing support both locally and internationally are in development.

Summary

Barbados provides some degree of palliative care in both the public and private sectors. Services in both sectors need to be strengthened to serve current and future needs. This is a task for both government and relevant NGOs. There are benefits to be derived at the individual, family and societal level. At the individual and family levels, palliative care and hospice are known to reduce stress through the relief of pain and psychosocial symptoms. At the national level, there are opportunities for cost savings due to decreased hospital admissions and decreased use of ancillary services^{12,13}. Expansion of palliative care in both the public and private sectors will bring Barbados closer to realising WHO recommendations for national comprehensive palliative care programmes for cancer and non-cancer diagnoses.

References

1. Brennan F. Palliative Care as an international human right. *Journal of Pain and Symptom Management* 2007;33(5):494-499.
21. Barbados Association of Palliative Care (BAPC) Annual Reports 2014 to 2017
3. Joint Venture Agreement between BACA Barbados and LWC, June 6 2015

Dr O'Neill Parris is Chairman of the Barbados Association for Cancer Advocacy, and practices in New York, USA.

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SPECIAL ARTICLE

DON'T RE-TRAUMATISE THE TRAUMATISED- DEALING WITH ADULT FEMALE SEXUAL ASSAULT SURVIVORS IN GENERAL PRACTICE



Dr Nastassia Rambaran
MB.BS. MSc PH

Family Physician

It's the last patient of the day. You look at the intake form and realise that it's a new patient complaining of a headache. While taking the history you notice that she seems to be quite sad and subdued and when you get to the social history she bursts out crying. In between sobs, she reveals that a man who she has been dating for a few weeks forced her to have sex at his apartment last night. Afterwards, he acted like everything was normal and now she's just utterly confused.

Recently the #MeToo movement has been shining a light on the issue of sexual harassment and assault, exposing the pervasiveness of the problem across social media. While #MeToo focuses on sexual harassment and assault, especially within the workplace, violence against women has also used other terms and a clarification of these terms would be helpful:

- *Gender-based violence (GBV)* or "violence against women" is any harmful act perpetrated on the basis of socially constructed gender roles, including physical, sexual, emotional/psychological, and verbal abuse. By far, the most common form is intimate partner violence against girls and women¹.
- *Intimate Partner Violence (IPV)* is any behaviour within an intimate relationship that causes physical, psychological or sexual harm to those in the relationship.² Many countries use the term 'domestic violence' instead, but domestic violence is broader and can encompass child or elder abuse, or abuse by any household member.²
- *Sexual violence* is 'any sexual act, attempt to obtain a

sexual act, unwanted sexual comments or advances, or acts to traffic, against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting'.³

- *Sexual harassment and sexual assault* are terms that are a bit more imprecise and can vary in meaning in different locations. Sexual assault encompasses several types of violent or threatening sex crimes ranging from rape to unwanted fondling and groping. In the US, it's legally defined as "any type of sexual contact or behaviour that occurs without the explicit consent of the recipient".⁴ Sexual harassment is behaviour of a sexual nature which violates someone's dignity, or creates a hostile environment for them, ex. suggestive remarks, unwanted touching, or requests or demands for sex.⁵
- Rape, according to the Barbados Sexual Offences Act, is "any person who has sexual intercourse with another person without the consent of the other person...or is reckless as to whether the other person consents to the intercourse is guilty of the offence of rape."¹

The scope of the problem

While the above definitions may seem clear, sometimes the practical application is more nuanced and prosecution of offenders can prove elusive. What is clearer, is the extent and consequences of sexual violence. Sexual violence is worldwide, and in some countries 1 in every 4 women has experienced its effects. However, research is missing in many parts of the world due to funding deficits, differences in terminology and methodological challenges.³ Sexual violence data typically originate from police, clinical settings, nongovernmental organisations and survey research. The link between these sources and the actual extent of the problem can be likened to an iceberg, with the tip representing cases reported to police, the larger section representing the data from surveys and NGOs, and an unquantified, but substantial number of incidents 'below the surface' not being reported to any source due to shame, blame, or other factors.³ The effects of sexual violence are wide-ranging and include: pregnancy and gynaecological complications (bleeding, infection, decreased sexual desire,

SPECIAL ARTICLE... cont'd

genital irritation, dyspareunia, chronic pelvic pain, infertility and urinary tract infections), STIs, adverse mental health effects (depression, anxiety, panic disorders, post-traumatic stress disorder), sleep disorders, high-risk behaviour, substance abuse, suicidality and death³.

There are no official statistics on the magnitude of sexual violence in Barbados, underscoring the urgent need for this type of data. Numbers compiled from the Royal Barbados Police Force up to 2013, which will just be the tip of the aforementioned iceberg, show that from 2000 to 2011 reported rape exceeded all other types of sex-related offences, but in 2013 reported rapes were overtaken by reported indecent assaults. The estimated incidence of rape alone, even excluding other types of sexual violence, in Barbados is 22.4 per 100,000 population. This indicates that sexual violence is of considerable concern in Barbados, as in the rest of the Caribbean⁶.

Our current protocols

The healthcare system and its providers are obligated to ensure full and comprehensive access to care for sexual assault survivors, as stated in global treaties and agreements that Barbados has signed onto. For healthcare providers, this is obviously a supplementary layer to the baseline level of professional obligation to ensure all patients receive the best health outcome.¹ Survivor advocates have increasingly called for an integrated community-based response to violence, but the legal and social welfare sectors remain prominent while health-care involvement has been minimal.

There is the perception that the role of the health care provider is merely reactive, mostly in the form of administering treatment as required. However, due to the myriad and far-reaching health effects of violence, including sexual violence, it can become clear that healthcare providers have a stake in ensuring the prevention of violence, like any other application of preventative medicine. Examining current protocols for addressing the needs of survivors would allow the bridging of any gaps in service provision as well as provide as opportunity for strengthening and inter-sectoral collaboration.

There currently exists no formal protocols or policies at the primary healthcare level in Barbados to deal with survivors of GBV or sexual violence. Instead, there is a reliance on a 'traditional' way of handling these cases, which varies between institutions. A 2010 study conducted at 5 of the nation's 8 polyclinics highlighted that 2 polyclinics reported they did not handle cases dealing with survivors of sexual assault, whilst the other clinics would generally 'fast-track' seeing these patients

although they did not have any formal protocols in place. Three polyclinics reported that they would offer testing for STIs, HIV and pregnancy to the survivor, and only one mentioned that they would offer counselling¹.

As frequently occurs, survivors can present, or are referred, to the accident and emergency department at the Queen Elizabeth hospital where the police medical officer, would be called to see to the case. The Royal Barbados Police Force currently has 4 doctors trained to deal with sexual violence cases, but there is no dedicated team for sexual assault and violence. This means there is the potential for what a survivor would deem an interminable delay in having the police attend to her assault if they are otherwise occupied with another type of crime.

The police medical officer would take a history, do a physical examination, and are the only persons authorised and trained to conduct a forensic examination and collect forensic samples. These tests and samples vary depending on whether the assailant is known or unknown, and could include fingernail scrapings, vaginal swabs, smears, blood tests and documentation of injuries. The police medical officers do not currently have access to a colposcope for documenting internal genital injuries. Oftentimes, the collection of samples is extremely time sensitive, as is the provision of prophylactic measures.

Getting to better

Going back to our patient whose history was mentioned at the beginning of this article, where some time has already elapsed since the assault: the easiest option to take would be for practitioners in private or public primary care to suggest that she reports to the police, and then the trained police doctors can take it from there. However, what if it takes hours to see the police medical officer? What if the patient refuses to report to the police? What if the patient refuses to see the police initially, but after she's overcome her state of shock 3 days later, she changes her mind?

In the absence of nation-wide protocols on delivering care and referring sexual assault survivors, health care providers can still be guided by international standards and protocols, such as those developed by the World Health Organisation.⁷ This guide emphasises woman-centred care whereby the wishes of the woman determines the care given. It is imperative that in our practices we recognise that power inequality between women and men can mean that women may have less access to resources such as money or information, and they may be

SPECIAL ARTICLE... *cont'd*

blamed and stigmatised for violence. We must then avoid reinforcing these inequalities in treating survivors.

One of the preliminary, and most important, steps which can be taken by the physician is to provide 'first-line support'. This is practical care that responds to a woman's emotional, physical, safety and support needs, without intruding on her privacy. It involves 5 tasks easily remembered with the acronym LIVES - LISTEN closely, with empathy and without judging, INQUIRE about needs and concerns (emotional, physical, social and practical), VALIDATE by showing you understand and believe her; assuring her she's not to blame, ENHANCE SAFETY by discussing a plan to protect from further harm if violence recurs and SUPPORT her by helping to connect to information, services and social support⁷.

The victim ought to be encouraged to talk, and physician show that they are listening ("Do you want to say more about that?"), and allow silences, giving her time to recover if she cries. Actions you should avoid, because they could do more harm than good, include forcing her to talk, trying to solve her problems, convincing her to leave a violent relationship or to visit other services (including the police), asking detailed questions that force the reliving of painful events, and pressuring her to voice her feelings and reactions to an assault. Paramount in giving first-line support is to always respect the woman's wishes.⁷

For sexual assault survivors without life threatening injuries (those of which need to be referred to emergency care), who present within 5 days of the assault, one should provide the first three steps of first-line support ('LIV') then take a history, examine, treat physical injuries, provide pregnancy, STI and HIV prophylaxis, and finish with the last two steps of first-line support (the 'ES'). Both HIV post-exposure prophylaxis and emergency contraception should be taken as soon as possible but the former can be given up to 3 days after and the latter at up to 5 days. For survivors presenting after 5 days, these measures are not to be offered, because of the time lapsed, the offer of STI prevention and treatment, Hep B immunisation and testing for pregnancy and HIV are recommended.

Before taking a history, it is wise to review any papers the survivor might have to avoid repetitive questioning.

The subsequent line of questioning recommended includes: (1) general medical information, (2) questions about the assault but only as necessary for medical care, e.g. location (s) of penetration (3) a gynaecological history, and (4) an assessment of mental state. Explain that the questions are to help provide

the best care but to not feel pressured to talk about things she doesn't want to talk about. Enable her to tell her story in her own way at her own pace with minimal interruptions. Essential clarification of details can be at the end, using gentle questioning and open-ended, non-judgemental questions. There should be an avoidance of asking blaming questions which appear to apportion blame such as: "Why did you...?" and only ask for specific information if you need it to treat properly and then explain why it's necessary to know⁷.

Ensuring that there is informed consent given for the medical and pelvic examinations, treatment, and any release of information to third parties, like the police and courts is important. Descriptions of the medical and pelvic examinations and an explanation should be given that treatment and examination will only proceed if she agrees, that she can refuse any aspects of the exam. Confidentiality in all aspects of the consultation is especially important when dealing with sexual assault survivors. Persons in the examination room should be kept to a minimum but ask whether the patient wants a family member or friend there for support and there should always be an observer, preferably a specifically trained support person, or a female health care worker. This observer should be introduced to the patient and their purpose – to provide help and support to the patient – explained. Male providers should ensure that the observer is female and should also receive confirmation from the patient that they are comfortable with being examined by a male. If not, have a female provider do the exam.

The physician should conduct a careful and systematic head-to-toe examination, mainly to determine medical need, but also for any legal documentation. During the examination, communication is important to avoid further trauma, so assure the patient that she is in control, she can ask questions, or stop the exam. Close attention should be paid to her emotional cues and ask often if you can proceed.

The genito-anal exam is a particularly sensitive one, especially when using a speculum, therefore patient comfort, good lighting and equipment are necessary. The patient should be covered with a sheet until ready for the exam and let her know when and where you will touch her. Proceeding slowly and always being careful not to increase distress is paramount⁷.

For patients who are undecided or refuse to go to the police, a full and well-documented exam can still be useful if she then decides to pursue legal recourse. Paying attention to the type of injury (cut, bruise, abrasion, fracture, other), description of the injury (length, depth, other characteristics), location, possible

SPECIAL ARTICLE... cont'd

cause, as well as documenting the treatment provided, will all be helpful information. More in-depth information on how to provide support and guidelines for prophylactic administration can be found in the WHO clinical handbook for women subjected to IPV or sexual violence available for free online.

Finally, referral to support services may be necessary. These can be: legal, including: the police, a private lawyer, Community Legal Services; social, for example: the Barbados welfare department, the Crisis centre (the only operating shelter for GBV survivors in Barbados), specialised NGOs such as Life in Leggings, church support groups; and mental health related, such as: private and public psychologists, psychiatrists, community mental health services.

Summation

The healthcare system in Barbados is not currently optimised for attending to the needs of sexual assault survivors. The lack of institutional and national protocols and formalised referral systems is a glaring omission in need of redress. Other measures worthy of consideration include: the formation of a dedicated sex crimes unit within the police force, trained provider teams in strategic health posts and training providers other than the police doctors in the collection of forensic evidence. In the interim, the onus remains on individual providers to become self-trained in administering sensitive and comprehensive care and support. Employing the LIVES metric is a simple and easy way to guide our interactions with these patients in order to provide the best quality care.

References

1. UNFPA Sub-Regional Office for the Caribbean, Barbados. 2009. Review of Public Health-Care Protocols, Guidelines & Procedures on Gender-Based Violence in Barbados. Available from: <http://caribbean.unfpa.org/en/publications/report-review-public-health-care-protocols-gbv-barbados-0>
2. WHO/PAHO. 2012. Understanding and addressing violence against women. Available from: http://apps.who.int/iris/bitstream/handle/10665/77432/WHO_RHR_12.36_eng.pdf?sequence=1
3. Krug EG et al., eds. 2002. World report on violence and health. Geneva, World Health Organization.
4. Campbell AF. 2018. The legal difference between sexual misconduct, assault, and harassment, explained. Available from: <https://www.vox.com/policy-and-politics/2018/1/26/16901998/sexual-assault-harassment-bill-cosby-guilty>
5. Williams Z. 2017. Sexual harassment 101: what everyone needs to know. Available from: <https://www.theguardian.com/world/2017/oct/16/facts-sexual-harassment-workplace-harvey-weinstein>
6. Bailey C. 2016. Crime and violence in Barbados: IDB series on crime and violence in the Caribbean. Inter-American Development Bank
7. WHO. 2014. Health care for women subjected to intimate partner violence or sexual violence: A clinical handbook. Available from: <http://apps.who.int/iris/handle/10665/136101>

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REPORT FROM THE CARPHA 2018 SCIENTIFIC CONFERENCE



Professor M Anne St John

MB BS (UWI) FRCPC. FAAP

The Caribbean Public Health Agency's (CARPHA) 63rd Annual Scientific Meeting (formerly CHRC) was held at the St Kitts Marriott Resort and Royal Beach Casino St Kitts, from June 14th to 16th, 2018, under the theme, 'Sustainable Health Systems for Economic Growth, Development and Wealth'.

This scientific conference takes place annually and is the largest of its kind in the Caribbean region. The very high standard of presentations was maintained by leading scientists and physicians in academia as researchers from various territories showcased their work in sixty oral and fifty-three poster presentations. The programme also included a list of special workshops, including and a number of both oral and poster presentations were made from researchers in various territories.

The very high standard of presentations made by leading scientists and physicians in academia predominated the meeting, whereby they showcased their research in sixty oral and fifty-three poster presentations.

This report provides an edited synopsis of the oral presentations, which were made by presenters who are based in Barbados. It is written to provide readers with some idea of the invaluable research and contribution that is being made at the regional level, in the areas of science and medicine.

Assessing the impact of the Barbados sugar sweetened beverage tax on grocery store beverage sales: An interrupted time series analysis.

M Alvarado, J Adams, M Suhrcke, I Hambleton, TA Samuels, N Unwin

In this study, the authors sought to determine whether there has been a change in sales of SSBs following implementation of the tax after a 10% excise tax on sugar sweetened beverages was implemented in Barbados in September 2015, using electronic point of sales (EPOS) data from a major grocery chain over the period January 2014 to December 2016. The number of litres sold per week was calculated of SSBs, non-SSBs and included vinegars as a non-beverage comparison group. They used an interrupted time series design to assess whether the introduction of the tax was associated with a change in level or trend in sales. Data from Trinidad and Tobago for the same grocery chain was used to examine overall trends in beverage sales in a Caribbean country without a SSB tax over the same period.

Results: The authors showed that the introduction of the SSB tax in Barbados was associated with a decrease in SSBs sold (litres) per week as compared to the estimated counterfactual without the SSB tax, being significant from four months after implementation. Neither Barbados non-SSBs nor Trinidad SSBs were associated with any statistically significant change following the tax.

Conclusion: Authors concluded that their analysis suggested that the introduction of the Barbados SSB tax was associated with a decrease in SSB sales in Barbados. No change was observed in sales of SSBs in Trinidad or vinegar or other non-SSBs in Barbados, over the same period however, and that additional research is needed to assess possible substitution to non-taxed powdered beverages and syrups.

Generic drug use: A 2017 survey of primary care physicians' knowledge, attitudes and practices in Barbados

W Jones, H Harewood

Faculty of Medical Sciences, The University of the West Indies, Cave Hill Campus, Bridgetown, Barbados

The authors' stated objective was to determine the knowledge, attitudes and practices (KAP) of registered primary care physicians in the private and public health sectors of Barbados, regarding generic drugs and their use.

RESEARCH FORUM... *cont'd*

A self-administered questionnaire was used to capture the KAP of randomly selected registered primary care physicians in the public and private health sectors of Barbados and data were analysed using descriptive statistics, Chi-square test and regression models.

Results: Analysis indicated (n = 120 respondents) that 70% were private sector physicians. Fifty-seven per cent responded 'no' to manufacturing standards being the same for both generics and branded drugs, with the mean knowledge score was 4.9 ± 0.16 out of eight. Most physicians believed generics were as safe as branded drugs and were more affordable (53% and 95%, respectively) and 65% believed that generic drug substitution contributed to the cost-effective management of disease. Two-thirds of physicians were opposed to automatic substitution of generics by pharmacists. Public physicians were three times less likely to agree that generics were as safe as branded drugs ($p = 0.01$) and that patients should be encouraged to use more generics ($p = 0.03$). They were also six times less likely to agree that generics were as effective as branded drugs ($p < 0.001$). All physicians prescribed generics; however, six in 10 were hesitant to, and 31% did not recommend generics to family, with public physicians times less likely ($p = 0.02$) to recommend to the families.

Conclusion: Authors concluded that all physicians prescribed generics and that gaps in physician knowledge have been identified with public physicians having a more negative attitude towards generics.

Diabetes and related risk factors disproportionately affect Caribbean women: An updated systematic review and meta-analysis of diabetes and determinants

L Guariguata, C Brown, NP Sobers, IR Hambleton, TA Samuels, N Unwin

The University of the West Indies, Cave Hill, Barbados; MRC Epidemiology Unit, University of Cambridge, Cambridge, United Kingdom

The authors conducted a systematic review of studies conducted in the Caribbean January 1, 2007 to December 2016 which reported the distribution of one or more social determinants of diabetes risk factors and outcomes in adults. WHO-related surveys were included.

Results: A total of 9212 manuscripts were identified. Of those, 282 were selected for full text review and 114 papers for abstraction. Thirty-five papers, including STEPS surveys, had sufficient information for meta-analysis. Women were more obese (OR: 2.1, 95% CI: 1.65, 2.69), less physically active (OR: 2.18, 95% CI: 1.75, 2.72) and had a higher prevalence of diabetes (OR: 1.48, 95% CI: 1.25, 1.76) than men. Smoking rates were higher for men than women (OR: 4.27, 95% CI: 3.18, 5.74).

Conclusion: Authors concluded that diabetes and its risk factors continued to disproportionately affect women in the Caribbean and smoking interventions should be targeted at men in the region.

Surveillance of HIV-infected mothers and infants in a prevention of mother-to-child transmission programme

M St John, D Babb

Queen Elizabeth Hospital, Barbados

The objective of this study was to evaluate the trends and outcomes among human immunodeficiency virus (HIV) infected pregnant women and infants.

The medical records of HIV-infected pregnant women who delivered live births between from January 2012 for a 5 years period, were reviewed. Specific maternal indicators among women with live births were evaluated, namely: age, parity, gestation, highly active antiretroviral therapy (HAART), delivery type, and indicators for infants including: birth weights, outcomes and mother-to-child transmission (MTCT) rates were analysed. Data was entered on a Microsoft Excel spread sheet.

Results: One hundred and four pregnant women delivered live infants and were aged 18–40 years. Ten (9.6%) were primiparous and the remainder multiparous, there were two (2%) women with repeat pregnancies and all except for four women were taking HAART at the time of delivery. There were 107 live births, with one twin delivery and one triplet delivery. Eighteen per cent of deliveries resulted after Caesarian sections. Birth weights ranged from 1600 g to 4.4 kg and gestations from 30 weeks to post term. Four infants (4%) were admitted to the Neonatal Intensive Care Unit after birth. Two routine polymerase chain reaction (PCR)

tests done by four months of age revealed infection in three (2.85%) infants.

Conclusion: The authors concluded that there was an increased infection rate of MTCT during the period of surveillance, meriting a need for strengthening of measures in the PMTCT national programme to achieve an even better outcome among HIV-infected pregnant women and their offspring.

Disparities in trends in premature adult mortality from coronary heart disease and stroke in ten countries of the Caribbean Community 1991 to 2012

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Faculty of Medical Sciences, The University of the West Indies, Bridgetown, Barbados; George Alleyne Chronic Disease Research Centre, Caribbean Institute for Health Research, The University of the West Indies, Bridgetown, Barbados; Population Health Research Institute, St George's, University of London; UKCRC Centre for Diet and Activity Research (CEDAR), MRC Epidemiology Unit, University of Cambridge School of Clinical Medicine, Cambridge, UK*

This study focused on determining the relative change and examining the disparities in trends in coronary heart disease (CHD) and stroke mortality among countries within the Caribbean Community and Common Market (CARICOM) from 1991 to 2012 for adults aged 30–69 years.

Authors obtained numbers of deaths by age and gender from the World Health Organisation mortality database and population data from the United Nations World population prospects, for the 10 full member states of CARICOM. Age-standardised CHD and stroke rates, were compared between countries and between selected time periods (1991, 2001, 2012) using the 2000 world standard population, for adults aged 30–69 years. The disparity using absolute mean difference (AMD) was measured. Relative change between the periods 1991–2001 and 2002–2012, was measured, using log-linear modelling.

Results: In both time periods, six countries noted declines in premature CHD mortality rates. In 2002–2012, three countries noted 25% or greater reduction: Barbados -0.65 95% CI (0.53, 0.79) St Lucia -0.74 (0.61, 0.91) and Trinidad and Tobago -0.61

(0.52, 0.70). Increases were noted in Antigua and Barbuda 1.14 (0.93, 1.41), Grenada 1.55 (1.34, 1.79), Guyana 1.25 (1.13, 1.38) and St Vincent and Grenadines 1.56 (1.24, 1.96). Most countries noted declines in premature stroke mortality rates in both time periods. Using AMD, the highest level of disparity between countries was found in 2012 relative to 2001 and 1991 for CHD; for stroke disparity was greater in 1991.

Conclusion: Authors concluded that there were differences in trends in premature CHD among 10 Caribbean populations and that, understanding reasons for these differences is critical in informing policies shaping cardiovascular diseases management.

Diabetes distress and diabetes self-care in Barbados

S Alexander, A Atherley, E Morris, OP Adams

The University of the West Indies, Cave Hill, Barbados
The objective of the study was to measure the prevalence of diabetes distress and determine diabetes self-care behaviours in people with Type 2 diabetes mellitus in Barbados, in a quantitative cross-sectional study using consecutive sampling among people with Type 2 diabetes attending all nine primary care, public-sector, polyclinics in Barbados. Data was collected using a questionnaire including demographic data, the diabetes distress scale (DDS) and the summary of diabetes self-care activities (SDCA) scale. Participants were weighed and glycosylated haemoglobin and height were obtained from the charts.

Results: There were 179 participants (85% response rate) with a mean age of 64 years (SD 10.6), 29% male, 97% black, 43% completed secondary school, 47% retired, 34% employed and a mean HbA1C of 8.1% (SD 2.2%). The prevalence of moderate or greater diabetes distress was 13% (95% CI: 8.3, 18.7). The DDS scores were higher in the 40–59 vs 60–79 years age group ($p = 0.007$) and increased as BMI increased ($p = 0.026$) and number days/ week participants paid attention to their diet decreased ($p = 0.001$). The average number of days in the previous week that participants paid attention to their diet, exercise, blood sugar monitoring and foot care were 3.8 (SD 1.5), 2.8 (SD 2.3), 3.8 (SD 2.7) and 5.0 (SD 2.3), respectively. Insulin users were more likely to have positive self-care behaviours related to blood sugar monitoring ($p = 0.0001$) and foot care (0.02).

RESEARCH FORUM... *cont'd*

Conclusion: Authors concluded that diabetes distress (moderate or greater) prevalence was lower than reported in other populations and many deficiencies in diabetes self-care were found.

HIV and Type 2 diabetes: A qualitative exploration of the burden of care experienced and perceived by persons living with multiple co-morbidities in Barbados and Trinidad and Tobago

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The study objective was to explore how persons living with human immunodeficiency virus (PLHIV) and Type 2 diabetes mellitus (T2DM) experienced and managed these co-morbidities in the context of health systems and culture. Participants with a diagnosis of both HIV and T2DM for more than two years were selected with the assistance of HIV treatment centres in Barbados and Trinidad and Tobago. Individual, face-to-face semi-structured interviews were conducted using an interview guide, which explored self-care, healthcare delivery, socio-economic support and internal resilience. Saturation was reached at the 10th interview on each island (13 females and seven males aged 39–65 years were interviewed). All interviews were audio-taped and transcribed verbatim. Data were analysed using thematic analysis with constant comparison. ATLAS.ti (7) data management software used.

Results: Aspects of diabetes self-care such as blood glucose monitoring and diet, were more onerous than minimal HIV care actions of adhering to oral anti-retroviral therapy and clinic visits. HIV was experienced and perceived as having lower physical workload, and there were more psychological challenges related to this diagnosis.

These were throughout the disease trajectory and centred on stigma and discrimination, which affected social determinants of health such as employment and housing. A preference for centralised integrated HIV/T2DM care stemming from stigma and discrimination within healthcare

settings in Barbados and Trinidad and Tobago was also identified.

Conclusion: Authors concluded that integrated communicable and non-communicable care models which assess psychological workload should be considered in HIV healthcare and that addressing stigma and discrimination and their impact on health outcomes for PLHIV is imperative.

The Eastern Caribbean Health Outcomes Research Network (ECHORN) Cohort Study Protocol

TA Thompson, RG Maharaj, M Nunez, C Nazario, OP Adams, M Nunez-Smith

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With cancer and diabetes having replaced infectious diseases as the leading causes of morbidity and mortality in the Caribbean - now contributing to almost 50% of disability-adjusted life years lost in the region - authors concluded that there is a need for locally generated information to address this disproportionate disease burden in the Caribbean. The purpose of this paper was to describe the research protocol of a regional cohort study that aimed to provide longitudinal information on diabetes, cancer and cardiovascular disease and their associated risk and protective factors in the Caribbean.

The Eastern Caribbean Health Outcomes Research Network (ECHORN) cohort study is a longitudinal study performed in four Caribbean countries that differ in language, infrastructures, governance and ethnic/racial composition. The study procedures included a survey on socio-demographics and known risk factors for diabetes, cancer and heart disease, a clinical assessment, laboratory tests and bio-banking.

Results: 2900 participants have enrolled into the study and will be followed at 4–5-year intervals to assess lifestyle and

health changes. Primary outcomes included: prevalence of risk factors for diabetes, heart disease, and cancer, and changes in metabolic (eg blood pressure) and behavioural factors over time.

Conclusion: Authors concluded that The ECHORN Cohort Study was an important step in characterising the burden of non-communicable chronic diseases at a regional level in the Caribbean and that this longitudinal study will provide valuable information on three chronic diseases in different country settings, advancing knowledge of healthcare utilisation across different healthcare delivery systems in the eastern Caribbean.

The ECHORN Cohort Study: Alcohol use among the elderly: Associations with non-communicable diseases and psychosocial issues

RG Maharaj, TA Thompson, M Nunez, C Nazario, OP Adams, JL Martinez-Brockman, M Nunez-Smith

The objective of the study was to report on the prevalence of alcohol use and its association with non-communicable diseases (NCDs) and psychosocial issues.

The sample was 1032 participants aged 60 years or older from the Eastern Caribbean Health Outcomes Research Network (ECHORN) Cohort Study (Barbados, Puerto Rico, Trinidad and the US Virgin Islands). Four drinking profiles (ever drinker, current drinker, problem drinker and heavy drinker) were created and demographic, social, health and psychosocial characteristics were analysed for each profile using Chi-square tests.

Results: Nearly 70% (69.3%) reported 'ever' drinking, 21.8% were 'current' drinkers, 5.0% 'problem' drinkers and 6.5% 'heavy' drinkers. Respondents from Trinidad reported more 'problem' drinking (30.8%) and 'heavy' drinking (43.3%) compared to their counterparts on the other three Islands ($p < 0.001$). Nearly 52% (51.9%) had either Stage 1 or 2 hypertension; 32.1% were diabetic and 7.9% reported cancer. Approximately 12.5% reported symptoms suggestive of depression. Those with Stage 1 hypertension were more likely to report 'heavy' drinking in the past month, compared to those who were not heavy drinkers ($p < 0.05$). Those who

reported 'ever' drinking were more likely to report cancer, compared to those who reported not drinking ($p = 0.039$). Religiosity/spirituality was associated with less alcohol use ($p < 0.001$). All alcohol profiles were associated with early sexual activity ($p < 0.001$) and having more than five sexual partners ($p < 0.05$). Employment was significantly associated with heavy drinking in the past month.

Conclusion: Authors concluded that Eastern Caribbean elderly with hypertension or psychosocial issues should be screened for heavy alcohol use.

The ECHORN Cohort Study: Obesity and weight misperception among adults in the Eastern Caribbean

S Hassan, D Galusha, T Ojo, JL Martinez-Brockman, P Adams, R Maharaj, C Nazario, M Nunez, M Nunez-Smith

With evidence suggesting that weight misperception (underestimating one's actual weight) may reduce engagement in weight-loss programmes, the purpose of this study was to examine the prevalence of weight misperception among Eastern Caribbean adults and how it influenced engagement in weight control behaviour.

Data from the Eastern Caribbean Health Outcomes Research Network (ECHORN) Cohort Study (ECS) at baseline were analysed, which comprised of approximately 3000 adults aged 40 and older residing in the US Virgin Islands, Puerto Rico, Barbados and Trinidad and Tobago. Weight misperception was defined as participants who under-assess their actual weight. Binary multivariable logistic regression ($n = 1957$ participants) was used to examine the association of weight misperception with: body mass index (BMI) category, age, gender, educational level, known history of non-communicable disease (NCD) and participant attempt to lose weight.

Results: Weight misperception was common with 55% of the overweight (BMI 25–29 kg/m²) and 24% of obese class I (BMI 30–34.9 kg/m²) participants under-assessing their actual weight. There was no difference in weight misperception between men and women, but odds of weight misperception were lower in participants with higher education (OR = 0.51; $p < 0.0001$) and known history of pre-diabetes versus no known NCD (OR = 0.63; $p = 0.002$). Participants with weight

RESEARCH FORUM... *cont'd*

misperception were less likely to report that they were 'trying to lose weight' than those with accurate weight perception (OR = 0.15, $p < 0.0001$).

Conclusion: Authors concluded that weight misperception was common among overweight and obese adults in the Eastern Caribbean and was associated with lower likelihood of attempting weight-loss. Addressing weight misperception is critical to the success of obesity interventions targeting Eastern Caribbean adults.

The ECHORN Cohort Study: Physical activity among participants 40 years of age and over

OP Adams, RG Maharaj, M Nunez, C Nazario, JL Martinez-Brockman, M Nunez-Smith

The study objective was to determine physical activity levels of adults aged 40 years or over in Barbados, Puerto Rico, Trinidad and Tobago and the US Virgin Islands (USVI). A representative population-based sample completed the Global Physical Activity Questionnaire and associations with physical activity levels were explored by univariate Chi-square test and logistic regression.

Results: Of 2362 participants, 34.0%, 29.2%, 24.9% and 12% were from Barbados, Trinidad and Tobago, Puerto Rico and the USVI, respectively; 34.3% were male; 24.5%, 35.2%, 39.3% were normal weight, overweight and obese, respectively; 60.5% had hypertension and 27.3% diabetes. Low, moderate and high physical activity levels were reported by 44.7%, 19.3% and 36%, respectively. People with diabetes vs those without (49.2% vs 43%, $p = 0.0064$) or hypertension vs those without (49.3% vs 37.7%, $p < 0.0001$), or obesity vs normal weight counterparts (51.5% vs 39.4%, $p < 0.001$) were more likely to report low physical activity levels, and men were less likely than women to report low activity (36.1% vs 49.2%, $p < 0.001$). Logistic regression controlling for age and gender indicated that diabetes (odds ratio [OR] 1.23, 95% CI: 0.99, 1.53), hypertension (OR 1.57, 95% CI: 1.28, 1.92), obesity vs normal weight (OR 1.85, 95% CI: 1.45, 2.36), Puerto Rico vs Barbados (OR 2.54, 95% CI: 1.97, 3.27) or Puerto Rico vs Trinidad origin (OR 1.69, 95% CI: 1.31, 2.19) were predictors of low vs high physical activity levels.

Conclusion: Authors concluded that a low level of physical activity was associated with increasing age, female gender, obesity, hypertension, diabetes and residing in Puerto Rico.

Moderate food insecurity is associated with nutrition-related cardio-metabolic conditions in the ECHORN Cohort Study

JL Martinez-Brockman, C Oladele, P Adams, C Nazario, M Nunez, R Maharaj, R Perez-Escamilla, M Nunez-Smith

The objective of this study was to describe the prevalence of food insecurity in the Eastern Caribbean Health Outcomes Research Network (ECHORN) Cohort Study and its association with the following nutrition-related cardio-metabolic conditions: obesity, Type 2 diabetes mellitus, hypertension and heart disease.

Stratified multi-stage random sampling was used to empanel the ECHORN Cohort between 2013 and 2016 in Barbados, Trinidad and Tobago and Puerto Rico and simple random sampling was used in the United States Virgin Islands of St Thomas and St Croix. The present study was a cross-sectional analysis of baseline data from all island sites ($n = 2087$). Household food security was measured using a previously validated version of the Latin American and Caribbean Food Security Scale (ELCSA), nine-item sub-scale for adults (Cronbach's $\alpha = 0.90$).

Results: Nearly 30% (28.7%) of the ECHORN Cohort had some level of household food insecurity, categorised by: mild (17.4%), moderate (6.5%) or severe (4.7%). The prevalence of food insecurity was highest in Trinidad, followed by Puerto Rico, Barbados and USVI, and Women, younger participants and those less educated were significantly more likely to report food insecurity. In multivariate regression models adjusting for gender, participant age, education, island site, and obesity status, participants from moderately food insecure households had significantly higher odds of heart disease and Type 2 diabetes, compared to those from food secure households.

Conclusion: Authors concluded that moderate food insecurity was associated with increased odds of heart disease and Type 2 diabetes. Households that are moderately food insecure may use limited resources to buy more energy dense processed foods that are cheaper and more readily available than fresh produce.

RESEARCH FORUM... cont'd

Disparities in hypertension in populations living in the Caribbean: A systematic review and meta-analysis

NP Sobers, L Bishop, K Lewis, JC Critchley, TA Samuels, N Unwin

This study sought to assess the distribution of hypertension prevalence, awareness and control by known social determinants for populations living in the Caribbean. A search was performed on Medline, Embase and five databases through the Virtual Health Library, for Caribbean studies published between 2007 and 2016. PRISMA guidance on reporting systematic reviews on health equity was followed. Only quantitative studies ($n > 150$) were included. Meta-analyses using random effects models were performed for gender distributions only.

Results: Out of 2883 articles screened, 114 required full text review and 31 described the distribution of hypertension prevalence (31), awareness (6) and control (4) by one or more social determinants. Social determinants studied were: gender (31 articles), education (6), ethnicity (5), occupation (4), income (3), marital status (2), residence (2) and employment status (1). Of the articles with low risk of bias which examined hypertension prevalence by gender, four found higher rates in women and two reported higher rates odds ratio (OR) of 0.96 and 95% CI of 0.67, 1.38. Five of six studies found that compared to women, men were less likely to be aware of their diagnosis: OR 0.44, 95% CI (0.20, 0.94). Among those on treatment, men were less likely to be controlled: OR 0.58, 95% of CI 0.45, 0.76.

Conclusion: Authors concluded that there was a paucity of literature on distribution of hypertension by social determinants other than by gender. Markedly, lower awareness and control in men indicates a need for more effective strategies to improve screening and treatment, in Caribbean men.

A study on the prevalence, molecular characteristics and antimicrobial susceptibility patterns of methicillin resistant Staphylococcus Aureus in hospitalised patients in the Queen Eliza-beth Hospital, Barbados

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Michael, Barbados; Faculty of Medical Sciences, Queen Elizabeth Hospital, St Michael, Barbados

Authors set out to study the prevalence, molecular characteristics and antimicrobial susceptibility patterns of methicillin resistant Staphylococcus aureus (MRSA) in hospitalised patients in the Queen Elizabeth Hospital, Barbados.

Methicillin resistant Staphylococcus aureus (MRSA) isolates were conveniently collected in the Micro-biology Department at the Queen Elizabeth Hospital. Identification and antibiotic resistance were performed using the Micro-Scan dried Gram-positive panel. The molecular characteristics were analysed using the multiplex polymerase chain reaction, for amplification of the *mecA*, *mecC* gene, *panton valentin leukocidin* (*pvl*) and *spa* genes.

Results: One hundred isolates were identified as MRSA. All isolates were sensitive to vancomycin, rifampin, linezolid and trimethoprim/sulfamethoxazole. Eighty-two per cent of the isolates were sensitive to Clindamycin. All isolates were resistant to Ceftriaxone and Ciprofloxacin. Ninety isolates were resistant to Erythromycin, with two isolates showing inducible Clindamycin resistance. A total of 77/100 isolates showed the presence of the *mecA* and *spa* genes. The *pvl* gene was present in 76/77 isolates. A further 15 isolates showed amplification of the *spa* and *pvl* gene only. The remaining eight isolates showed no amplification of the *spa* *mecA*/ *C* and *pvl* genes.

Conclusion: Authors concluded that the prevalence rate was determined as 19.7% for the period of study. The presence of the *pvl* gene and the high susceptibility antibiotic profile to the non- β lactam antibiotic was a predictor that the isolates were of the community-acquired strain. These two factors are markers associated with community origin of MRSA in hospitalised patients at the Queen Elizabeth Hospital.

Methicillin resistant Staphylococcus Aureus in the primary healthcare system in Barbados and its susceptibility patterns with co-trimoxazole.

E Chase, M Gittens-St Hilaire
Best-dos Santos Public Health Laboratory, St Michael, Barbados

RESEARCH FORUM... *cont'd*

Authors set out to assess the prevalence of methicillin resistant *Staphylococcus aureus* (MRSA) in the primary healthcare system in Barbados and to determine its susceptibility patterns with Co-trimoxazole.

Swabs were conveniently collected from the eight polyclinics and their satellite clinics in Barbados between 2013 and 2016. These swabs were taken from various anatomical locations and were analysed at the Winston Scott Public Health Laboratory utilising the following test methods: catalase test, coagulase test, antimicrobial disk diffusion test, conventional polymerase chain reaction (PCR) and agarose gel electrophoresis. Data were analysed using the WHONET 5.6 software programme.

Results: Swabs (n = 193) collected from wounds, nares and abscesses, showed 71%, 8.8% and 6.2% MRSA positivity, respectively. Regarding the antimicrobial susceptibility testing, resistance was observed in erythromycin (100%), ciprofloxacin (97.4%), clindamycin (13%) and co-trimoxazole (5.7%). No resistance to vancomycin was seen. The panton valentin leukocidin (pvl) gene was detected in 97.9% of the isolates, the *mecA* gene in 2.1% and the *mecC* gene (0%). The D-zone effect was observed in 4.7% of the isolates tested. All isolates were catalase and coagulase positive.

Conclusion: Authors concluded that in Barbados, > 90% of CA-MRSAs were sensitive to co-trimoxazole while > 90% were resistant to erythromycin and ciprofloxacin, which are the two antibiotics commonly used in outpatient therapy for skin and soft-tissue infections. All beta-lactam antibiotics were resistant; therefore co-trimoxazole should be considered as the antibiotic of choice. Frequent monitoring of susceptibility patterns of MRSA and the formulation of a definitive antibiotic policy should be established.

A study on the prevalence, molecular characteristics and antimicrobial susceptibility patterns of methicillin resistant *Staphylococcus Aureus* in hospitalised patients in the Queen Elizabeth Hospital, Barbados

D Alleyne, M Gittens-St Hilaire

Microbiology Department, Queen Elizabeth Hospital, St Michael, Barbados; Faculty of Medical Sciences, Queen Elizabeth Hospital, St Michael, Barbados

The objective of this study was to study the prevalence, molecular characteristics and antimicrobial susceptibility patterns of methicillin resistant *Staphylococcus aureus* (MRSA) in hospitalised patients in the Queen Elizabeth Hospital, Barbados.

hyMRSA isolates were collected in the Microbiology Department at the Queen Elizabeth Hospital. Identification and antibiotic resistance were performed using the Micro-Scan dried Gram positive panel. The molecular characteristics were analysed using the multiplex polymerase chain reaction, for amplification of: *mecA*, *mecC* gene, panton valentin leukocidin (pvl) and *spa* genes.

One hundred isolates were identified as MRSA. All isolates were sensitive to vancomycin, rifampin, linezolid and trimethoprim/sulfamethoxazole. Eighty-two per cent of the isolates were sensitive to Clindamycin. All isolates were resistant to Ceftriaxone and Ciprofloxacin. Ninety isolates were resistant to Erythromycin, with two isolates showing inducible Clindamycin resistance. A total of 77/100 isolates showed the presence of the *mecA* and *spa* genes. The pvl gene was present in 76/77 isolates. A further 15 isolates showed amplification of the *spa* and pvl gene only. The remaining eight isolates showed no amplification of the *spa*, *mecA*, *mecC* and pvl genes.

Conclusion: Authors concluded that the prevalence rate was determined as 19.7% for the period of study. The presence of the pvl gene and the high susceptibility antibiotic profile to the non- β lactam antibiotic was a predictor that the isolates were of the community-acquired strain. These two factors are markers associated with community origin of MRSA in hospitalised patients at the Queen Elizabeth Hospital.

Reference:

CARPHA Public Health Agency 63rd Annual Scientific Meeting. West Indian Medical Journal Supplement 67:(Suppl 2)1–74 June 14–16, 2018 ISSN 2309-5830 (Online) WIMJAD

The BAMP Bulletin Committee would like to acknowledge and commend all authors and co-authors of abstracts. It acknowledges that the material was reprinted and CARPHA, as the copyright owner of the material used and reproduced in this issue of the BAMP Bulletin.

NEW US HYPERTENSION GUIDELINES- DO WE NEED TO WALK BEFORE WE SPRINT!



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New BP Guidelines Released With Big Targets For Small Islands?

In the fall of 2017, the American Heart Association (AHA), and the American College of Cardiology (ACC), the two leading authorities on hypertension in the United States, published new Guidelines for the Management of High Blood Pressure in Adults¹. The last major revision of the Guidelines, JNC 7, occurred in 2003².

In the interim decade, many significant events have occurred to better address hypertension, but the global burden of the Non-Communicable Diseases (NCDs) - especially in low to middle income countries (LMIC)³ - and include:

- the CARICOM led Port of Spain declaration of 2007
- the WHO NCD targets 2010
- WHO call to action 2015

Of note, in 2014, the Pan-American Health Organization (PAHO) and the US Centers for Disease Control (CDC), with local partners such as the Healthy Caribbean Coalition (HCC), The UWI Cave Hill Campus, and the Barbados Ministry of Health, piloted the Standardised Hypertension Treatment Project (SHTP)⁴. The pilot focused on the implementation of interventions:

- I. The use of a standardised treatment algorithm
- II. The availability of affordable of core evidence based drugs
- III. The strengthening of health systems
- IV. The creation of a hypertension registry
- V. The project occurred at two pilot sites, Winston Scott Polyclinic (WSPC) & Edgar Cochrane Polyclinic (ECPC), and showed an increase of 13% in the control rate from baseline, compared to 18 months post intervention. This led to the genesis of the PAHO CDC GLOBAL HEARTS programme for the management of NCDs in the Caribbean and Latin America; Barbados, Columbia, and

Chile, have so far enrolled as programme countries. The programme focused not on which guideline was used, but that a single evidence based guideline be used by all health care providers in a given setting.

Major changes and implications for care in small island developing states

The decade gap in the publication of a new AHA/ACC (JNC) guideline resulted in both apprehension and hope about what new recommendations would be made. These changes are shown **Table 1** which compares the BP Targets of the ESH/ESC versus ACC/AHA guidelines 2017.

The first major recommendation was lowering of the target for the diagnosis of hypertension to >130 mmHg systolic, and/or > 80mmHg diastolic. It further suggested that the target in adult patients should be < 130 and/or < 80mmHg. The new threshold, as compared with other major guidelines, is independent of age or diabetes mellitus (**Table 2**).

This change for both diagnosis and target was thought to be largely due to results of the SPRINT trial^{5,6}. The trial showed a significant decrease in mortality, driven mainly by heart failure, for intensive BP control to <120 and <80, when compared to most accepted target to <140/<90. This recommendation, the most significant for the new guideline, was largely driven by the results of the SPRINT (Systolic blood Pressure Intervention Trial) study. SPRINT demonstrated a 25% decrease in mortality for a SBP goal of <120 versus <140 mmHg in primary cardiovascular outcomes and all cause mortality in high-risk patients with hypertension. This was largely driven by a reduction in the HF development rate in the former group. It should be noted however that the clinical conditions in the SPRINT trial were far from the usual office conditions. One major difference was the use of automated automatic BP monitoring of patients in SPRINT, which allows for the removal of the health care professional effect from the reading - the so-called white coat effect. Another contributing barrier of SPRINT to larger applicability was the use to a high-risk cohort in the study. Not surprisingly, patients in the clinical trial had easy access to dedicated staff and resources in the incubator of the project environment. SPRINT was therefore heavily criticised for its lack of real-life applicability to a larger population of all ages and risk.

CME ARTICLE...cont'd

Another significant recommendation in the 2017 AHA/ACC Guidelines was the recommendation to first implement a trial of initial lifestyle changes for patients at low CVD risk. The exact period of trial was not specified or when drug treatment should be implemented, if still not to target. The introduction of CVD risk as a trigger for both implementation of, and target for, treatment is also not supported as a benefit in low risk patients with hypertension. It is predicted that, in the United States of America alone, this would increase from approximately 1/3 (33%) to almost 1/2 (50%) of the adult population.

Likely impact on hypertension treatment

If rigidly taken on board, the new AHA/ACC guidelines would result in a very sudden increase in the prevalence and cost of hypertension, creating a public health emergency in many respects. This will necessarily be married to an increase cost in managing hypertension, exposing small island vulnerable economies to potentially unjustifiable risks. In addition to the cost of treatment for newly categorised hypertension, the additional cost⁷ for risk stratifying a patient cannot be understated. Both health care physician training and adherence to the use of a risk stratifying tool, such as the Framingham or ASCVD risk tools, will be both costly and difficult in some primary care public settings in the region⁷⁻⁹.

Breaking further from the current management algorithm trajectory for hypertension, the guidelines place significant importance on the consideration of office readings. This represents a further cost to the health care setting if automated automatic monitors are used as per SPRINT and would contradict major guideline recommendations for use of out-of-office blood pressure measurement. Home blood pressure monitoring (HBPM) represents a more valid tracking of blood pressure than isolated office readings and may present with a way of safely monitoring BP response in LMIC.

Where do we go from here?

The controversies outlined with the 2017 AHA/ACC guidelines are likely to have major implications for the Caribbean and other low to middle income countries (LMIC). The "one size fits all approach" may result in less strategic use of limited resources, resulting in poorer controlled rates for high-risk groups. Colleges, such as the American Academy of Family Physicians (AAFP) and the American College of Physicians (ACP) have broken away from the acceptance of the guidelines

and have published their own statements for the management of hypertension.

Key factors for addressing the management of high blood pressure in adults should include:

1. The use of a standardised treatment algorithm with defined targets and goals.
2. A system for auditing control rates in the clinic setting
3. Use of core evidence based drugs
4. Incorporating home blood pressure monitoring

The "new guidelines" resulted in the major changes in thresholds and targets resulting from one clinical study, the SPRINT trial. There may be lessons learnt from this example of single study impact on guideline direction. Measures to increase both awareness and improved drug availability are far more critical in developing countries than setting lower targets to define hypertension. We need to walk before we SPRINT.

Table 1 – Comparison of BP Targets of the ESH/ESC versus ACC/AHA guidelines 2017

BP Category		ESH/ESC		BP Category		ACC/AHA 2017	
	Systolic		Diastolic		Systolic		Diastolic
Optimal	<120	and	<80				
Normal	120-129	and/or	80-84	Normal	<120	and	<80
High normal	130-139	and/or	85-89	Elevated	120-129	and	<80
Grade 1 Hypertension	140-159	and/or	90-99	Stage 1	130-139	or	80-89
Grade 2 Hypertension	160-179	and/or	100-109	Stage 2	≥140	or	≥90
Grade 3 Hypertension	≥180	and/or	≥110				
Isolated systolic hypertension	≥140	and	<90				

Table 2 – Comparison of BP Targets of the ESH/ESC and ACC/AHA in subgroups of patients

ESH/ESC	Population	Systolic	Diastolic
	General	<140	<90
	Elderly < 80y	<150	<90
	Fit elderly	<140	<90
	Diabetes	<140	<85
	CKD no proteinuria	<140	<90
	CKD +proteinuria	<130	<90
ACC/AHA			
	All populations	<130	<80

CME ARTICLE...cont'd

CME PRETEST QUESTION

A 42 year old mechanic visits his GP for a routine insurance medical. His office BPs are noted to be between 135 - 139/74 - 78 mmHg and this is consistent with home BP readings done using an approved arm monitor, over a one week period before the visit. He has no other risk factors for CVD and has no significant past medical history. His physical examination was normal, except for the finding of acanthosis nigricans.

- A. Concerning the 2017 AHA/ACC guidelines, which of the following is the best categorisation of his blood pressure
- Normal blood pressure
 - Elevated blood pressure
 - Stage 1 hypertension
 - Stage 2 hypertension
 - "White coat" hypertension
- B. According to the 2017 AHA/ACC guidelines, what is the next BEST STEP in his management
- Advise lifestyle changes
 - Calculate this cardiovascular risk
 - Commence monotherapy
 - Commence monotherapy & Statin
 - No further intervention required
- C. According to the 2017 AHA/ACC guidelines, which investigation should be requested to calculate his global cardiovascular risk?
- Fasting blood glucose
 - a history of alcohol use
 - an ECG
 - a cholesterol panel
 - 24 hour urinary metanephrines

Key- A (c), B (b) C (d)

References

- Whelton PK, Carey RM, Aronow WS, et al. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the prevention, detection, evaluation, and management of high blood pressure in adults. J Am Coll Cardiol. 2018;71:e127-e248
- Chobanian AV., Bakris GL, Black HR, et al. Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. Hypertension. 2003;42:1206-1252.
- Chow CK, Teo KK, Rangarajan S, et al. Prevalence, awareness, treatment, and control of hypertension in rural and urban communities in high-, middle-, and low-income countries. JAMA. 2013;310:959-968
- Patel P, Ordunez P, Connell K, Lackland D, DiPette D. Standardized hypertension management to reduce cardiovascular disease morbidity and mortality worldwide. South Med J. 2018;111:133-136.
- SPRINT Research Group, Wright JT, Williamson JD, et al. A randomized trial of intensive versus standard blood-pressure control. N Engl J Med. 2015;373:2103-2116.
- Egan BM, Li J, Wagner CS. Systolic Blood Pressure Intervention Trial (SPRINT) and target systolic blood pressure in future hypertension guidelines. Hypertension. 2016;68:318-323.
- Stevens B, Verdian L, Pezzullo L, Tomlinson J, Zegenhagen S. The economic burden of hypertension in Latin America. Value Heal. 2016;19:A647-A648.33.
- Biswas A, Singh RK, Singh SK. Medical and non-medical cost of hypertension and heart diseases in India. Cogent Soc Sci. 2016;2:1-10.34.
- Angell SY, De Cock KM, Frieden TR. A public health approach to global management of hypertension. Lancet. 2015;385:825-857.

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CME UPDATE

UNDERSTANDING THE MORE COMMON LABORATORY TESTS IN RHEUMATOLOGY



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In General Medicine, laboratory tests complement the clinical information derived from the history and physical examination and it is the same in Rheumatology. The following is a review of the clinical utility of the various tests ordered in patients with suspected rheumatic diseases as and effort is made by the clinician towards making the most accurate diagnosis in a patient.

The Acute Phase proteins

These are abnormal in many acute and chronic inflammatory diseases but may also be abnormal in infection, allergic states, trauma, tissue necrosis and malignancy.

In the acute phase reaction, alpha-antitrypsin, prothrombin, fibrinogen, haptoglobin and CRP may be elevated, and albumin may be decreased.

The erythrocyte sedimentation rate (ESR) is an indirect measure of the acute phase response. It is slow to respond to clinical change. The C-Reactive Protein (CRP) in contrast shows a rapid response to clinical change.

The other important point to be mindful of, is that CRP may be elevated in a host of noninflammatory, noninfectious, noncancerous conditions such as obesity, hypertension, diabetes, uraemia, coronary artery disease, chronic fatigue and depression.

Both ESR and CRP values increase with age, and as such, the appropriate result for an individual patient should be age-corrected.

For example, the normal ESR for men \leq age/2 or less, and for women being (age + 10) / 2 or less.

In rheumatology, the ESR is most useful in monitoring disease activity in rheumatoid arthritis, polymyalgia rheumatica, and temporal arteritis.

It is important to remember that a normal ESR value does not exclude the presence of inflammatory rheumatic disease, and a high ESR (especially over 40 or 50 mm/hr) supports the presence of inflammatory rheumatic disease IF the clinical features are already indicative of such a diagnosis.

Tests for diagnosis of Rheumatoid Arthritis

The rheumatoid factor is the older traditional test with an average sensitivity of 60% and an average specificity of 79%. It can be seen in other rheumatic conditions such as systemic lupus erythematosus (SLE) and Sjogren's syndrome, and is present in 70% of patients with Hepatitis C. A positive rheumatoid factor is not necessary, nor is it sufficient for a diagnosis of rheumatoid arthritis to be made. The diagnosis of rheumatoid arthritis requires a supportive history and the clinical finding of synovitis.

The more recently developed laboratory test which has been available for the past 18 years, is the anti-cyclic citrullinated peptide (antiCCP). The test uses an artificial protein to detect antibodies to citrullinated proteins- such antibodies are known to occur in patients with rheumatoid arthritis. It has an average sensitivity of only 64%, but a high specificity of around 94%. The antibodies can also be seen in less than 10% of patients with SLE and psoriatic arthritis. AntiCCP antibodies precede the development of clinical signs of rheumatoid arthritis by as many as 10 years.

The Antinuclear antibody (ANA)

A low level positive ANA may be seen in healthy individuals, with normal ageing and with some chronic infections. High level positive results are seen with SLE, scleroderma, Sjogren's syndrome, inflammatory myopathies, and a host of autoimmune diseases.

A positive ANA is seen in 95% of patients with SLE – so 5% of patients may remain ANA negative. A negative ANA may also be documented earlier in the course of the disease and may be positive on repeat testing as the disease evolves. Only if the ANA is positive is it necessary to do further antibody testing. The anti-dsDNA is quite specific for SLE, but is only positive in about 50% of patients (so it is not useful for screening). The most specific autoantibody test for SLE is the anti-Smith- this is positive in only 25% of SLE patients.

Other antibody tests are ordered based on clinical indication. For instance, the antiSSA antibodies correlate with heart block in utero, and would be useful to check before a patient embarks on a pregnancy.

CME UPDATE...cont'd

The ANA should only be ordered to support a clinical diagnosis of SLE or for another connective tissue disease, and should not be ordered randomly to "screen" a patient with undiagnosed symptoms such as chronic pain and fatigue. This is partly because of widespread inappropriate application of the ANA test. Evidence suggests that only 15% of patients with a positive ANA will eventually be diagnosed with SLE.

Testing for Antiphospholipid Antibody Syndrome

This syndrome is classically characterised by recurrent arterial and venous thromboses along with pregnancy loss (after 10 weeks). It can occur as a primary phenomenon or secondary to SLE. The following tests are ordered for suspected cases:-

Lupus anticoagulant (screening and confirmatory components)
 Anticardiolipin antibodies (IgG; IgM; IgA- the higher the titre, the higher the risk of thrombosis)
 Anti-beta2- Glycoprotein 1 (IgG; IgM)
 Anti-Prothrombin

The recommendation is that testing is repeated in 12 weeks to confirm a diagnosis.

Some patients with anti-cardiolipin antibodies may have a false positive VDRL.

Other tests, pearls and misconceptions

In SLE patients in Barbados, only 5% have been found to have an autoimmune haemolytic anemia. Generally speaking, the most common cause of anemia is anemia of chronic disorders. Lymphopenia is seen in 50% of patients, and therefore it is useful to specifically look at the lymphocyte count when considering a diagnosis of SLE.

Hyperuricemia is a risk factor for gout. Acute gout can occur in the setting of a normal serum level of uric acid. Conversely, joint pain experienced in the setting of hyperuricemia, may not be caused by gout. Gout is formally diagnosed by analysis of synovial fluid for the classic needle-shaped crystals engulfed by polymorphs, although though it can most frequently be diagnosed based on clinical symptoms.

I conclude by reminding clinicians that in the clinical practice of rheumatology, laboratory tests do not supplant good medical judgement. They should preferably be used to support and supplement the clinical information derived.

Dr Cindy Flower is an Associate Consultant in the Department of Medicine at the Queen Elizabeth Hospital in Barbados.

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CASE REPORT

HYDRADENITIS SUPPURATIVA



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*Consultant -Plastic and
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An 18-year-old obese female, with no prior reported illnesses, presented to the surgical clinic, with a recurrent history of abscesses to both axillae for the past four years. She had discontinued the use of powdered deodorant and had been using chlorhexidine scrub to both axillae, in an effort towards better hygiene. She had been prescribed oral antibiotics intermittently, by her general practitioner, for flares of the lesions with no other medication being taken. She had developed sinuses, which would intermittently drain pus, and had significant scarring in both axillary areas. The medical condition had significantly disrupted her lifestyle. She was previously an out-going, active young lady, and had become self-conscious and withdrawn. She also had similar, but milder lesions, under both of her breasts and buttock folds. She denied cigarette smoking and admitted significant weight gain over the past three years. At the time of her clinic visit, and following a history and clinical examination, she was diagnosed with severe hidradenitis suppurativa. A bilateral excision of sweat glands with skin grafting were electively performed.



Lesions in the left
axillary region



Lesions in the right
axillary region

Sinus

Discussion

Hidradenitis Suppurativa (HS) is a chronic, debilitating inflammatory disease which affects the hair follicle in the apocrine gland-bearing skin areas of the body, most commonly the axillae, groin and ano-genital regions¹. The increasing knowledge of this disease has led to the theory that HS involves the folliculo-pilo-sebaceous units of the skin. In accordance with this theory, the condition can affect any part of the skin where these glands are located. The population affected by HS is said to range from 1 to 4%, however, the incidence is likely skewed, as many patients do not report their disease due to embarrassment². Not infrequently, patients who present with the clinical symptoms have visited a number of physicians and received multiple therapies prior to the correct diagnosis being made and appropriate treatment received.

The aetiology of the condition is poorly understood, however is thought to be due to a combination of genetic, hormonal, immunologic and environmental factors. Follicular occlusion is the most likely inciting event. Inflammation and infiltrate accumulates within the tissue, and the follicle ruptures eliciting an immunologic response. This immunologic response makes the local environment more susceptible to bacterial infection. Abscesses form and drain to the outside of the skin through sinus tracts and the repeated episodes results in chronic inflammation and fibrosis³. A significant association between HS, obesity and smoking, has been proposed by several studies.

The Hurley grading system, as seen in Table 1, is the most frequently used system of classification to attempt to correlate clinical features with prognostic significance.

CASE REPORT...cont'd

Grading Stage	Clinical Features
Stage I	Solitary/multiple isolated abscess without scarring or sinus tracts.
Stage II	Recurrent abscesses, single/multiple widely separated lesions, with sinus tract formation
Stage III	Diffuse/broad involvement or multiple interconnected sinus tracts/abscesses, extensive scarring.

The currently recommended form of treatment of Hydradenitis Suppurativa is stage dependent. The initial treatment for patients with mild to moderate HS (Hurley stage I and II) entails lifestyle modification, local and systemic therapies and simple drainage procedures. It is important at this stage to counsel patients about HS and the spectrum of symptoms, so that they are psychologically prepared to deal with the disease. They should be advised on the importance of meticulous hygiene, weight loss and cessation of smoking⁴. If the patient is a diabetic, they should have adequate glycaemic control.

Mild stages, with low-grade lesions, may be treated with topical or systemic antibiotics (usually clindamycin and/or metronidazole) and/or corticosteroids. These medications have shown some success with helping to achieve remission for this stage of disease⁵.

Additional local treatment modalities which have been applied for stage III disease include: laser ablation, radiation, steroid and botulinum injections and cryotherapy⁶.

Conventional medical therapies, such as the ones mentioned above, have proven to be less successful in patients with Hurley stage III disease. Radical surgery to resect all of the involved tissue may be the only potential option for cure⁷.

The consensus is that the mainstay of treatment for HS is surgical excision and the extent of surgery is thought to significantly influence the outcome in these patients. Frequently used procedures include: simple incision and

drainage, surgical de-roofing, local excision and radical resection of all involved tissue. Incision and drainage (I&D) is the most commonly performed procedure for acute, localised abscesses⁸. However, it is limited in its efficacy and recurrence is considered inevitable after these limited procedures.

It is hypothesised that HS is an auto-inflammatory disease caused by the imbalance of the innate immune system. In keeping with this theory, anti-inflammatory or immune-modulating drugs may be of benefit in the treatment of HS⁹. The most encouraging recent evidence in HS has been the use of biologic therapies, and their effectiveness in the treatment of moderate to severe disease.

The most currently investigated biologic is Infliximab, which has shown promising results. However, there is no current evidence that suggests biologics alone are sufficient for long-term management or cure of moderate to severe HS.

Conclusion

Despite several advances in surgery and biological therapy for HS, recurrence rates are still high and satisfaction rates low, especially with severe disease. There are many unanswered questions about this disease, from the pathogenesis to the best targeted treatments. Hidradenitis Suppurativa is a costly, devastating disease with a significant psychological impact on the patients. The burden and magnitude of hidradenitis suppurativa, warns one not to underestimate or to misdiagnose a patient who presents with a complaint of an "annoying, and embarrassing condition", namely in the form of recurrent (not frequently axillary or groin abscess).

References

1. Ralf Paus L, Kurzen H, Kurokawa I, Jemec GBE, Emtestam L, Sellheyer K, et al. What causes hidradenitis suppurativa? *Exp Dermatol*. 2008 ;17:455–72
2. Prens E, Deckers I. Pathophysiology of hidradenitis suppurativa: An update. *YMJD*. 2015;73 (Suppl 1):S8–11.
4. Rambhatla PV, Lim HW, Hamzavi I. A systematic review of

CASE REPORT...cont'd

- treatments for hidradenitis suppurativa. Arch Dermatol. 2012 ;148:439–46.
5. Bettoli V, Join-Lambert O, Nassif A. Antibiotic Treatment of Hidradenitis Suppurativa. Dermatol Clin. 2016 ;34:81–9.
 6. Ellis LZ. Hidradenitis suppurativa: surgical and other management techniques. Dermatol Surg. 2012 ;38:517–36.
 7. Mitchell KM, Beck DE. Hidradenitis suppurativa. Surgical Clinics of NA. 2002 ;82:1187–97.
 8. Hsiao JL, Antaya RJ, Berger T, Maurer T, Shinkai K, Leslie KS. Hidradenitis suppurativa and concomitant pyoderma gangrenosum: a case series and literature review. Arch Dermatol. 2010 146:1265–70.

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2. Hewitt P. Trust, assurance and safety - the regulation of health professionals in the 21st century. London: Stationery Office, 2007. www.officialdocuments.gov.uk/document/cm70/7013/7013.pdf.

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