CONFERENCE SUPPLEMENT ISSUE July 2018

The BeyHealth Quarterly

Influential thinking on healthcare practice, policy and standards

96% of you say this could happen here!

Nigeria's Codeine Crisis
Tim Ojo

Polycystic Ovarian Syndrome
Bosede Afolabi

Metabolic Syndrome
Victor Oguntolu

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The BeyHealth Quarterly

1861, Acts of Parliament and Europe's restrictive abortion laws

As Africa looks on, Europe can no more deliver on a 'common rulebook' of practices than it can engineer a hard border between Northern Ireland and the Irish Republic

The 1861 Offences Against the Person Act remains the substantive position of the law on abortion in the United Kingdom. This ancient piece of legislation remains firmly on the statute books as an *Act of Parliament of the United Kingdom and Ireland*. It effectively renders the practice of abortion a criminal offence in the United Kingdom, the status-quo for the last 150 years.

But what an *utterly absurd and illogical statement*, especially given the existence of the widely familiar Abortion Act of 1967, passed by Parliament as an 'amendment' to the 1861 legislation in the first of Sir Harold Wilson's two liberalising (albeit troubled) terms in office.

In reality, the 1861 Act, assumes five key amendments (provisions) of the 1967 Act with the effect of securing the safe practice of abortion under strictly regulated conditions and guidelines. It, however, makes no provision to decriminalise abortion practices outside of these firmly defined boundaries regulated by law.

There is, of course, the small matter of devolution. Abortion law is a devolved issue invested (through the Scotland Act of 2016) in the jurisdiction of the Scottish Parliament at Holyrood. It is unsurprising therefore that in 2017, Scotland became the first of the UK home nations to deviate substantially from the Abortion Act of 1967 by offering women the opportunity to take the prescribed abortion pill, Misoprostol at home if deemed clinically appropriate by a suitably qualified professional.

So, why all this talk about the United Kingdom, Holyrood and 1861 (sounds a bit like 1066)! Cheluchi Onyemelukwe presents a carefully constructed picture of Abortion Law in Nigeria in her column on *page 32*. The Scottish trend appears to mirror the spike in online 'interest' in Misoprostol recorded from countries such as Nigeria and Ghana, where abortion laws have historically been perceived as restrictive. Sociocultural tensions in some of the more socially conservative regions of Nigeria also appear to fuel (in part) the country's codeine crisis, discussed extensively by Tim Ojo on page 16.

A closer inspection of the 1861 Act of Parliament *(table 1)* reveals the construction of this time-honoured piece of legislation to be identical in wording to the stipulation of Sections 228 and 229 of the Nigerian Criminal Code, save for a slight deviation in the Nigerian variant to accommodate a less draconian, more lenient recommendation of a sentence of 7 to 14 years. This version compares rather favourably with the UK equivalent of *'penal servitude for life'*, a statement having the immediate effect of conjuring up images of *'transportation'* to colonies in far-away lands!

Despite increasing pressure from within and outside the country, the United Kingdom has not in fact sought to extend the jurisdiction of its 1967 Abortion Act to the region of Northern Ireland, a country through which the UK shares its only land border with the independent Republic of Ireland. The Repeal of the Irish 8th amendment *(page 34)* describes the impact of the May 25th referendum on the Republic's identically-named 1861 Offences Against the Person Act.

So what, if any, are the inferences to be drawn from this preceding chronicle of legal jurisdictions and evolving Acts of Parliament. The discourse so far establishes that the criminal code, enshrined in the provisions of the 1861 Act of UK Parliament, remains in force over the entire realm of the United Kingdom of Great Britain and Northern Ireland, the sovereign Republic of Ireland and vast sections of the United Kingdom's colonial sphere of influence, including the Federal Republic of Nigeria.

An increasingly popular culture of referenda is sweeping across much of Western Europe, perhaps enabled by a higher propensity towards cultural liberalisation, a 'disruption' of conventional wisdom and willingness to challenge existing social norms. This cultural revolution has been instrumental to the engineering of a novel social trajectory, encouraging the adoption of amendments to existing law and the landscape of established abortion practices over the last few decades.

The most casual perusal of existing abortion rules in operation in the 28 EU Member States *(page 34)* depicts a picture as far away as anyone could possibly depart from the principles of the *'Common Rulebook'!* Sociocultural norms and religious beliefs, it would appear, do not travel across borders quite as freely as do goods and services. The practice of abortion remains a criminal offence throughout much of Western Europe, save for specified sanctioned provisions justified by amendments to the established law.

There appears in that case to be the possibility of a much softer border *(if readers will forgive the constant insertion of entirely intended Brexit metaphor)* between Northern Ireland and the Republic of Ireland, than is ever likely to be the case between, France and Italy or between Malta and any of the other 27 EU Member States!

"Every woman, being with child, who, with intent to procure her own miscarriage, shall unlawfully administer to herself any poison or other noxious thing, or shall unlawfully use any instrument or other means whatsoever with the like intent, and whosoever, with intent to procure the miscarriage of any woman, whether she be or be not with child, shall unlawfully administer to her or cause to be taken by her any poison or other noxious thing, or shall unlawfully use any instrument or other means whatsoever with the like intent, shall be guilty of felony, and being convicted thereof shall be liable... to be kept in penal servitude for life..."

Table 1: Offences Against the Person Act 1861

Italy – A one-week reflection period is imposed unless the situation is one of urgency. Parental authorisation is required if the woman is under 18. After 12 weeks, abortion is allowed only if the foetus has a genetic deficiency or to preserve the physical and mental health of the mother. The influence of the Roman Catholic Church - and the threat of excommunication for anyone performing an abortion and any woman obtaining an abortion - means the majority of physicians and other healthcare professionals invoke a conscience clause allowing them to be exempted on moral or religious grounds.

Malta – Abortion is prohibited in all circumstances. Anyone performing an abortion - or a woman who performs one on herself or consents to the procedure - can be jailed for between 18 months and three years. A physician, surgeon, obstetrician, or pharmacist who performs an abortion faces a jail term of 18 months to four years and a lifelong ban from exercising his or her profession.

Table 2: Europe's Abortion Rules - (Italy & Malta)

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The BeyHealth Quarterly

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Design
Mick Lowe - Bedford, UK.
Cover Photo
Toby Melville/Reuters

Contents

Influential thinking on healthcare practice, policy and standards

Case Review
Metabolic Syndrome (MetS)

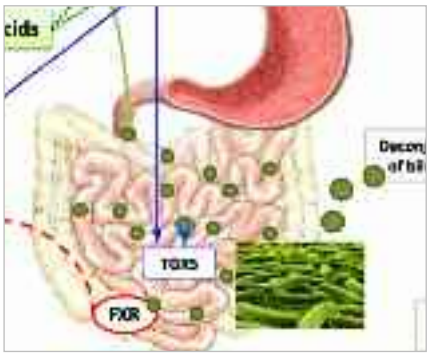
CPD Hot Topic
Polycystic Ovarian Syndrome (PCOS)

Feature Article
Nigeria's Codeine Crisis

16 In the feature article, Tim Ojo discusses the Socioeconomic determinants & the resolution of 'wicked' problems of codene abuse in Nigeria.

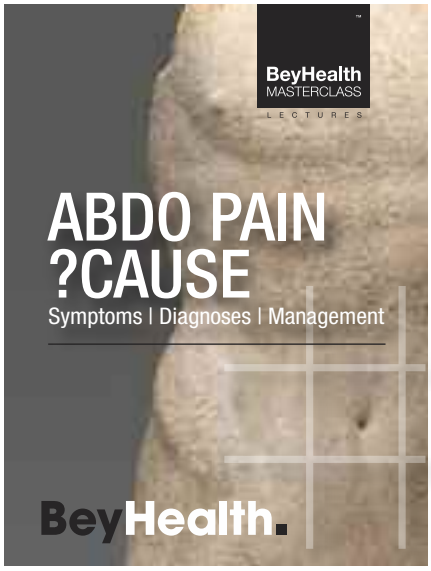
Medico-legal
Abortion Law in Nigeria

32 A critical appraisal of the origins of Nigeria's strict anti-abortion laws. Cheluchi Onyemelukwe examines various arguments on all sides of the debate.



Clinical Update
Bariatric Surgery & Type-2 Diabetes

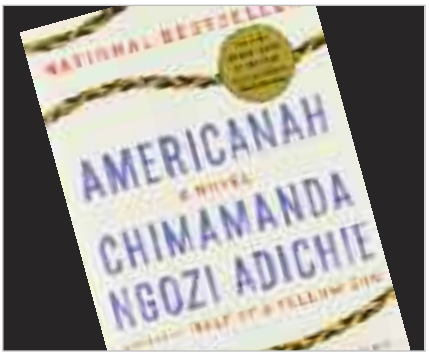
26 Metabolic surgery is now an established option in the treatment of obese patients with type-2 diabetes. Abuchi Okaro discusses the benefits of this procedure.



36 **Conference Programme inside**
Full itinerary, description and conference agenda.

Reflections
Innovative, private sector funding of healthcare

28 "... it is essential that we find innovative ways of funding and providing health care". Clare Omatseye talks to Alero Roberts about the need for innovation in healthcare financing strategies.



Book Review
Americanah by Chimamanda Ngozi Adiche

24 Mariam Toye explores what Chimamanda's third literary novel does not explicitly tell us about health and social care in developing countries.

LETTERS

editor@beyhealth.com

TaTME and Rectal Cancer!

We have read Mr Obichere's article on the management of colorectal cancer (page 26, BHQJ, May 2018 edition) with great interest. It provides a comprehensive review of current approaches in the management of colorectal cancers. This comment provides an additional source of reference with a focus on minimally invasive techniques.

In an era of screening colonoscopy, we are likely to detect rectal cancers at a much earlier stage. Recently, several trans-anal minimally invasive surgery (TAMIS) techniques have been developed. These include TEM (trans-anal endoscopic microsurgery) and TaTME (trans-anal total mesorectal excision)[1]. Prime indications for these procedures include rectal cancer at T1 and T2 stages without loco-regional involvement and advanced lesions (T3) in medically unfit patients[2].

Literature reports that both techniques (TEM and TaTME) provide intact, non-fragmented tissues (100% vs 96%) with circumferential free margins (98% vs 94%) and low recurrence rates (8% vs 2%). A systematic review and metanalysis reported comparable clinical outcomes of intraoperative complications, hospital stay and readmission in laparoscopic v trans-anal approaches, but a shorter operative time for TaTME.[3]

Although the literature is lacking on comparative studies of TEM vs TaTME, the TaTME procedure offers the advantage of rapid set-up time, flexibility and cost-effectiveness. The Association of Coloproctology of Great Britain and Ireland has successfully launched a pilot training programme as a first initiative and is monitoring progress through a TaTME registry.[4]

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Negligence and the law - *'Please don't shut the door!'*

A 'brief' reaction to the article on page 12 of the May 2018 edition (Medical Negligence & the Law) – The Medical and Dental Practitioners Disciplinary Tribunal (the "Tribunal") has the discretionary power to order the name of a registered medical or dental practitioner adjudged guilty of infamous conduct in any professional respect or convicted of an offence which in the opinion of the Tribunal is incompatible with the status of a medical practitioner, to be struck off the register of practitioners.

The Tribunal can also suspend the relevant practitioner for a period not exceeding six months. However, the Tribunal can only act when a case is referred to it by the Medical and Dental Practitioners Investigation Panel (the "Panel") after the Panel's investigation. The decision of the Panel to refer a case to the Tribunal and make an order for interim suspension of a medical practitioner is on its satisfaction 'that to do so is necessary for the protection of members of the public'. Thus, the essence of disciplinary measures against a medical or dental practitioner is not necessarily to redress a wrong done to an individual patient, but rather to protect the public from the acts of such a practitioner.

Consequently, litigation is not necessarily an alternative to the Tribunal's disciplinary jurisdiction. Litigation is a standalone path open to an aggrieved patient to sue and demand compensation against a practitioner for an act of negligence committed against that patient. Where the said practitioner's action may be considered to have given rise to a crime, he or she would be liable to prosecution in the regular courts. Pertinently, such a conviction may in itself constitute reasonable grounds for disciplinary measures taken against a medical practitioner.

Thus the assertion in the medicolegal article of the May 2018 Issue of this Quarterly that the absence of a functioning Tribunal 'shuts the door to a faster process of resolution for patients' is firmly misplaced given that the Tribunal does not provide any resolution that affects the aggrieved patient individually. Rather, the decision of the Tribunal against an errant practitioner seeks to protect the interest of the public in these matters.

In summary, litigation for medical negligence would remain the only option for redress in favour of an aggrieved patient; criminal prosecution would continue to address any crime committed by a medical doctor which is incompatible with the ethos of his or her profession, whilst the Tribunal's disciplinary jurisdiction addresses the practitioner's infringement of the code of conduct which the Medical and Dental Practitioners Council of Nigeria considers desirable for medical practice in Nigeria.

Egbiri Egbiri
Associate
emplars Law, Lagos

Rallying to Activism

Congratulations on a very interesting May 2018 edition of the BHQJ. It certainly does live up to the reputation of the Masterclass lecture series in providing information and provoking thought. I was particularly drawn to two articles in the May Issue of the Journal – Dr Oshunniyi's article on funding healthcare services in Nigeria and the interview with Dr Soyinka on the need for health insurance, activism and urgent change. Both speak to the fundamental problems of funding and accountability, albeit from different perspectives.

However, it occurs to me that simply alleviating our funding crisis is not a panacea

for all that is wrong with the quality and efficiency of our nation's healthcare. While inadequate financing is most certainly a major problem confronting healthcare delivery in Nigeria, it is also the case that a lack of funding has become an excuse for various pervasive forms of poor performance, including professional incompetence, poor attitudes, medical negligence and poor hygiene.

Dr Soyinka's insight into the catalytic ability of a well-executed National Insurance system is quite illuminating. This should then be our rallying point for activism. Will it immediately solve the problem? I daresay, "No!". But if we do manage to get this right, perhaps we will all be together on the right road to solving the problem.

Folasade Ogunsola
Professor of Medical Microbiology
University of Lagos

Just PALS Really!

Dr Cheluchi's insightful piece on 'Medical Negligence & the Law', printed in the May edition of the BHQJ certainly caught my interest. Indeed, the rules are more often observed in the breach. Nonetheless, it is encouraging to see that the legal framework for implementing best practice in this area does exist in Nigeria.

As patients become better educated concerning their rights, there will be a need for healthcare establishments to support these advances by providing designated patient liaison officers to assist with much-needed information and support.

The UK NHS Patient Advice and Liaison Service (PALS) offers confidential advice and information on health-related matters and coordinates patient concerns and complaints (including plaudits) through a single point of contact dedicated to each hospital.

https://www.nhs.uk/common-health-questions/nhs-services-and-treatments/what-is-pals-patient-advice-and-liaison-service/

Perhaps the medical and dental council, in collaboration with the law society and consumer protection council (CPC) of Nigeria should consider the merits of setting up a similar arrangement to support the public.

Dr Abimbola Aluko
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Letters to editor@beyhealth.com
Letters should be 100-300 words in length.
We reserve the right to edit letters.

Grenfell Tower
North Kensington, London - 14th June 2017

Public health & safety standards in Nigeria

On the 14th of June 2017, a devastating fire engulfed a 24-storey block of public housing flats in West London, UK. 72 people of various nationalities died in the fire, including a 2-year old boy and a stillborn child. Grenfell was an oasis of poverty situated within the richest borough of London.

96 per cent of people surveyed said this could happen in Nigeria for one of the following reasons.

70 per cent could remember (at least) one similar occurrence in the last 10 years.

We would like to know what you think about this very important discussion.
To contribute to our survey, please visit: **www.beyhealth.com/survey**

Case Review
Metabolic Syndrome (MetS)

Victor Oguntolu

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Introduction

Metabolic Syndrome (MetS), also known as insulin resistance syndrome or syndrome X, is defined as a combination of abnormalities resulting as a consequence of insulin resistance and abnormal adipose tissue regulation. Its features include obesity, high blood pressure, elevated blood sugar levels and high triglycerides. The overall clinical manifestation of the condition is an increase in the risk of cardiovascular disease, type-2 diabetes, non-alcoholic fatty liver disease (NAFLD) and obesity-related cancers.[1]

Insulin resistance results in defective insulin receptor signalling and impaired gluconeogenesis in the liver, fat and muscles cells. Adipose tissue dysregulation leads to an increase in free fatty acids and accumulation of (intra-abdominal) visceral fat which promotes inflammation due to the excessive release of pro-inflammatory cytokines.

Independent of sex and ethnicity, the likelihood of developing metabolic syndrome is greater with increasing BMI. The occurrence of this condition is, however, not restricted to obese individuals of either sex. The concept of metabolic syndrome in non-obese individuals refers specifically to individuals with a BMI of 19-29.9 Kg/m^2 who display characteristics of metabolic syndrome such as insulin resistance, dyslipidaemia and visceral adiposity. In a 2017 study of 1168 Malaysian teachers, Lee S.C et al. (2017) reported an 8.3% prevalence of metabolic syndrome occurring among non-obese participants.[3]

Prevalence

The prevalence of metabolic syndrome is increasing in line with the rising level of obesity worldwide. Data from the National Health and Nutrition Examination Survey (NHANES) database in 2002 revealed a prevalence of 34.5%.[4] The Framingham Heart study recorded a prevalence of 26.8% in men and 16.6%in women. Although the prevalence of MetS is higher in developed nations due to the higher prevalence of obesity, the condition is recognised as a global problem with rising incidence in Asia, Africa and Latin America.[5]

Pathogenesis

Obesity, especially visceral adiposity is a chronic low-grade inflammatory condition. Unlike subcutaneous fat, visceral (intra-abdominal) fat strongly correlates with inflammation, dysfunctional adipose tissue regulation and secretion of pro-inflammatory cytokines, typically associated with the occurrence of metabolic syndrome.

Hypertrophied dysregulated adipocytes secrete pro-inflammatory cytokines resulting in oxidative stress and metabolic derangements such as hyperglycaemia, dyslipidaemia, endothelial dysfunction and atherogenesis. Metabolic abnormalities associated with MetS can be detected (and monitored) by the presence of serum biomarkers. Detection of these early biomarkers could be of use in the management of diabetes and metabolic syndrome in high-risk populations.[6]

Biomarkers for Metabolic syndrome

Leptin – Discovered in 1994, leptin is a hormone produced predominantly by adipose cells. Leptin is responsible for energy expenditure and the regulation of appetite (hunger inhibition). Its signal from energy (adipose) stores within the body exerts a negative-feedback effect on appetite and energy intake through receptors in the arcuate nucleus of the hypothalamus.

Obese individuals, however, develop leptin resistance (akin to insulin resistance in type-2 diabetes patients) despite high circulating levels of leptin, resulting in further weight gain due to a loss of hunger inhibition. Elevated leptin is therefore associated with obesity and insulin resistance. The level of this biomarker is proportional to the mass of adipose cells present and therefore predictive of obesity-related chronic conditions such as metabolic syndrome.[7]

Adiponectin – Unlike Leptin, adiponectin is produced only by adipocytes. It promotes insulin sensitivity and lipid oxidation and protects the endothelial cells against atherosclerotic vascular damage. Low plasma levels of adiponectin are observed in metabolic syndrome and individuals with visceral adiposity, hypertension and type 2 diabetes.[8]

1. Abdominal obesity (waist circumference > 102cm (40inc) in male) and 88cm (35in) in females
2. Serum Triglycerides > 150 mg/dL (1.7mmol/l) or if already on TG lowering treatment
3. HDL cholesterol < 40mg/dl (1.0mmol/l) in males and < 50mg/dl (1.3mmol/l) in females
4. Blood pressure >130/85 mmHg or if already on antihypertensive agents
5. Fasting plasma glucose >100 mg/dL(5.6mmol/l) or if already on glucose-lowering agents

Table 1: Metabolic syndrome - 5 diagnostic criteria (Revised ATP III guidelines)

Leptin/Adiponectin Ratio (LAR) – High LAR is a more sensitive biomarker for metabolic syndrome than either Leptin or Adiponectin in isolation. LAR is directly associated with MetS and positively correlates with all the individual components of MetS.[9]

Uric acid – Uric acid is a marker for oxidative stress. It demonstrates pro-inflammatory and pro-oxidant activity, resulting in tissue damage. Hyperuricemia is a risk factor for atherosclerosis, hypertension and dyslipidaemia. The level of uric acid is elevated in MetS and also in all the individual components of MetS.[10]

Diagnosis

Although the concept of metabolic syndrome provides a practical and useful way of identifying patients with multiple risk factors for developing diabetes and other forms of cardiovascular disease, MetS is often not diagnosed in clinical practice as an individual disease entity.[11] Instead, the cardiovascular and other standard components of the syndrome are usually identified and treated as separate disease conditions. Not often mentioned is the high degree of prevalence of conditions such as hypogonadism, also observed in obese individuals with metabolic syndrome.[12] Recognising MetS as a disease cluster is essential, to ensure early intervention and prevention of long-term complications and morbidity.[13]

Several diagnostic criteria have been proposed for the definition and identification of metabolic syndrome with input from – the National Cholesterol Education Program Adult Treatment Panel III (NCEP ATPIII), the International Diabetes Federation (IDF) and the World Health Organisation (WHO).

More recently, the National Heart, Lung and Blood Institute (NHLBI) and the American Heart Association (AHA) proposed a revised set of ATPIII guidelines recommending the diagnosis of metabolic syndrome based on 3 out of 5 criteria listed in *table 1*:

Patient X's presentation with erectile dysfunction (suggestive of hypogonadism) is however atypical in the present context.[15] *Table 4* outlines the essential relationship between hypogonadism and obesity in metabolic syndrome.

> “Obesity, especially visceral adiposity is a chronic low-grade inflammatory condition.

CASE STUDY 1

Patient X – A 38-year-old hypertensive gentleman (on ACE-inhibitor treatment) referred by his GP, to the endocrine clinic with a history of erectile dysfunction. He drinks several units of alcohol a day.

On clinical examination *(fig 1)*, he was morbidly obese with a BMI 42kg/m2. His blood pressure was 165/90mmHg. He had features typical of insulin resistance – prominent supraclavicular fat pad, acanthosis nigricans and skin tags on his neck. Biochemical investigation revealed the following results – total testosterone level – 2.0 nmol/l (8.4-27.4), cholesterol – 7.2 mmol/l (0-5), triglyceride – 10.2 mmol/l (0.3-1.7), ALT – 102 U/L (9-55), ALP – 200 U/L (30-130) plasma glucose – 8.9 mmol/l and HBA1c – 7.8% (63 mmol/mol). Liver ultrasound scan and abdominal MRI revealed fatty liver disease and extensive visceral adiposity.

Diagnosis – This is a classic case in which the patient fulfils the ATPIII criteria for diagnosing metabolic syndrome. Further investigation confirmed diagnoses of dyslipidaemia, type-2 diabetes, and non-alcoholic fatty liver disease (NAFLD).

Treatment – An aggressive change in lifestyle was recommended – smoking and alcohol cessation, dietary changes and regular exercise, in combination with GLP-1 analogue therapy (for weight loss).[14] The patient lost 26kg in weight (BMI reduction to 34). 12 months later, his medication was discontinued. His blood pressure was 125/70, HBA1c – 5.6% (38mmol/mol), serum cholesterol – 4.2mmol/l, Triglyceride levels – 1.4mmol/l, testosterone – 9.2nmol/l and liver function tests (LFT) returned to normal levels.

Table 2: Metabolic syndrome, Obesity and Hypogonadism

Clinical implications

Both cases (outlined in tables 2 and 3) describe individual scenarios of patients with a characteristic diagnosis of metabolic syndrome but presenting in different ways. Both patients have high triglyceride levels, type 2 diabetes, hypertension, and non-alcohol fatty liver disease and are therefore at significantly increased risk of cardiovascular morbidity.

CASE STUDY 2

Patient Y– A 67-year-old female was referred to the diabetes clinic with a recent diagnosis of type-2 diabetes, for which she has already been prescribed 1g Metformin twice daily and Canagliflozin 300mg once a day. She has a background history of hypertension and hypercholesterolemia. Her current medication includes Ramipril 5mg daily, Atorvastatin 20mg daily and Aspirin 75mg.

On clinical examination *(fig 2),* BMI was 25.2kg/m2 and BP 155/90mmHg. She has features suggestive of peripheral neuropathy and peripheral vascular disease. Monofilament and vibration tests were negative in the distal regions. Dorsalis pedis and posterior tibial pulses were absent on (hand-held) Doppler examination. Blood biochemistry showed the following – HBA1c – 9.2%, plasma glucose – 10.5 mmol/l, cholesterol – 6.5mmol/l, triglyceride – 6.2mmol/l, ALP – 190U/L and ALT – 99U/L. Liver ultrasonography revealed features of fatty liver.

Diagnosis – Type-2 diabetes (newly diagnosed/inadequately controlled), peripheral vascular disease, coronary artery disease, hypertension, dyslipidaemia and non-alcoholic fatty liver disease (NAFLD).

Treatment – Patient Y was started on insulin therapy (Novomix 30), The dose of Atorvastatin was increased to 40mg daily (a fibrate was subsequently added to the regimen), Ramipril was increased to 10mg daily and Amlodipine was added to achieve improved blood pressure control. Further investigations revealed occluded coronary and popliteal arteries. She required angioplasty to both occluded arteries.

Table 3: Metabolic syndrome in the non-obese patient

CPD UPDATE

The origin of hypogonadism in MetS is due mainly to an increase in aromatase activity that arises from the excessive accumulation of fatty tissue in obese individuals.[16]

Hypogonadism in the metabolic syndrome is mediated by Aromatase, an enzyme produced in fat (adipose) cells and associated with increased conversion of testosterone to oestradiol (testosterone-oestradiol shunt). The decreased levels of bioavailable testosterone (and a corresponding rise in oestradiol) encourages the preferential deposition of further abdominal fat, leading to a further reduction of circulating testosterone and progressive hypogonadal state. A loss of compensatory (feedback) increase in gonadotrophin production in MetS (due to inhibition of the hypothalamo-pituitary axis) often results in a progressive cycle of *hypogonadotropic hypogonadism*.[17]

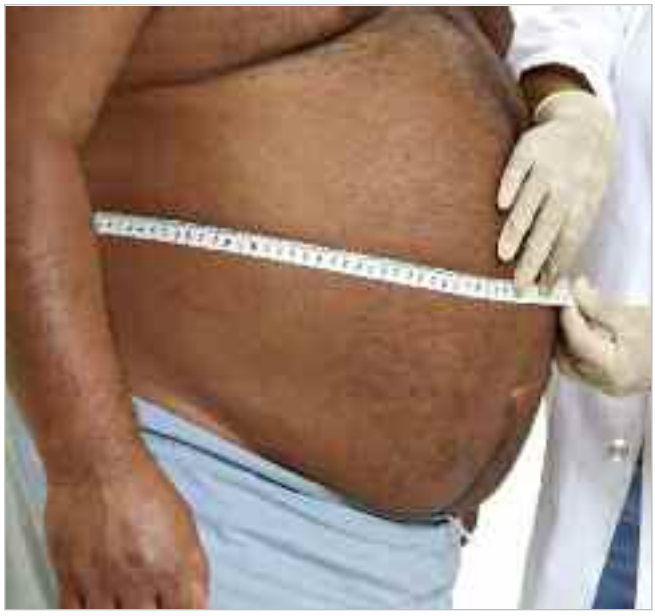

Figure 1: Obese patient with Metabolic Syndrome (Case 1)

Aggressive lifestyle intervention achieved successful treatment outcomes (and risk reduction) in Case 1. Despite the lack of symptoms in Case 2, *Patient Y* had already developed coronary artery disease and peripheral atherosclerosis.

The second case illustrates the concept of metabolic syndrome in a non-obese individual. Despite a normal BMI, she fulfils the ATP III criteria for the diagnosis of metabolic syndrome. As previously discussed, metabolic syndrome may occur in both obese and non-obese individuals.

The most appropriate treatment approach in metabolic syndrome is to screen the individual for all constituent elements of the MetS cluster of diseases, initiate aggressive lifestyle modification and specific treatments where necessary, and maintain an overall objective of reducing cardiovascular morbidity and mortality.

A detailed history and clinical examination should always be performed to detect the presence of type 2 diabetes, hypertension, dyslipidaemia, fatty liver disease, obstructive sleep apnoea, depression and hypogonadism.

Recognising metabolic syndrome as a disease cluster is essential to early intervention and prevention of long-term morbidity

Assessment of 10-year cardiovascular risk using a valid risk assessment score such as QRISK 2 or Framingham Risk score is essential to target individuals at increased risk of developing cardiovascular disease.

Treatment

The three components of treatment are as follows – (1) Aggressive lifestyle modification and medical therapy for established risks, (2) management of obesity and hyperglycaemia; and (3) regular screening for cardiovascular disease.[18]

Figure 2: Non obese patient with Metabolic Syndrome (Case 2)

> Metabolic syndrome is more common with increasing BMI, but its occurrence is not restricted to obese individuals. of either sex.

Diet and Lifestyle: Healthy diets with a caloric restriction such as Mediterranean diet, low fat and low glycaemic index food; smoking cessation; reduction in alcohol intake and increased physical activities are the recommendations to prevent metabolic syndrome and improve cardiovascular health.[19]

Medical therapy: Statins and fibrates to treat dyslipidaemia, ACE inhibitors, a calcium antagonist and β blockers to treat hypertension; Metformin, GLP-1 agonist and SGLT2 inhibitors to treat obese MetS patient with diabetes; bariatric surgery for morbidly obese patients and antiplatelet therapy for patients at high risk of developing ischaemic heart disease.

Screening for cardiovascular disease: Patients with symptoms should be assessed with an ECG, echocardiogram and coronary angiogram to help detect the presence of established coronary artery disease and left ventricular systolic dysfunction.

Summary

Metabolic syndrome is a cluster of abnormalities occurring as a consequence of defective insulin signalling, abnormal adipose tissue regulation and chronic low- grade tissue inflammation leading to oxidative stress. The primary mediator of this condition is insulin resistance. MetS is a significant risk factor for cardiovascular disease and type 2 diabetes.

The main clinical features of metabolic syndrome are abdominal obesity, hypertension, dyslipidaemia, hyperuricaemia and hyperinsulinaemia. The National Heart, Lung and Blood Institute (NHLBI) and the American Heart Association (AHA) proposed revised ATPIII guidelines on the basis of 3 out of 5 criteria *(table 3)*.

The correct management approach in patients with metabolic syndrome is based on aggressive lifestyle intervention and treatment to prevent the development of type-2 diabetes and associated cardiovascular risk. In those with established risks, targeting the individual components of MetS with medical therapy is essential.

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CPD Hot Topic
Polycystic Ovarian Syndrome (PCOS)

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Introduction

Polycystic Ovarian Syndrome (PCOS), also known as Stein–Leventhal syndrome is an enigmatic and complex endocrine disorder originally described by Drs Irving Stein and Michael Leventhal in 1935. Their description of the disease remains the basis of its diagnosis to this day.

PCOS is the most common endocrine disorder in women of reproductive age, seen in as many as 75% of anovulatory women. In a 2013 study, the condition was observed in 18.1% of Nigerian women presenting in two infertility centres over a two-year period. Ultrasound findings suggestive of PCOS are present in up to 20% of women, including those without symptoms. Specific criteria must, therefore, be satisfied to establish a diagnosis of Polycystic Ovarian Syndrome.

Pathogenesis

The aetiology of PCOS is multifactorial, suggesting familial and genetic associations alongside a variety of environmental factors. The syndrome includes the presence of the following – elevated Luteinizing Hormone (LH), insufficient Follicle Stimulating Hormone (FSH) and insulin resistance, all of which work synergistically to cause increased ovarian growth, ovulatory dysfunction and excessive androgen production.

Obesity may increase the degree of insulin resistance and consequent hyperinsulinemia. Elevated insulin levels cause a decrease in the synthesis of two important binding proteins, namely – insulin-like growth factor binding protein (IGFBP-I) and sex hormone binding globulin (SHBG) which in turn leads to an increase in the level of androgens present in the circulation. Many of the clinical manifestations of the syndrome arise from hyperinsulinaemia and hyperandrogenemia.

Diagnostic criteria

The Rotterdam conference held in 2003 attempted to standardise the diagnostic criteria for PCOS and reached a consensus on the existence of 2 or more of the following features:

1. Oligo-ovulation or anovulation
2. Clinical and/or biochemical signs of hyperandrogenism (HA)
3. Polycystic ovarian morphology (PCOM) – i.e. 12 or more follicles measuring ~2-9mm in diameter or ovarian volume of >10cm3 on transvaginal ultrasound scan. A single ovary may fulfil the sonographic criteria.

All other causes of excessive androgenic secretion, such as congenital adrenal hyperplasia (CAH), Cushing's syndrome, androgen-secreting tumours must have been excluded.

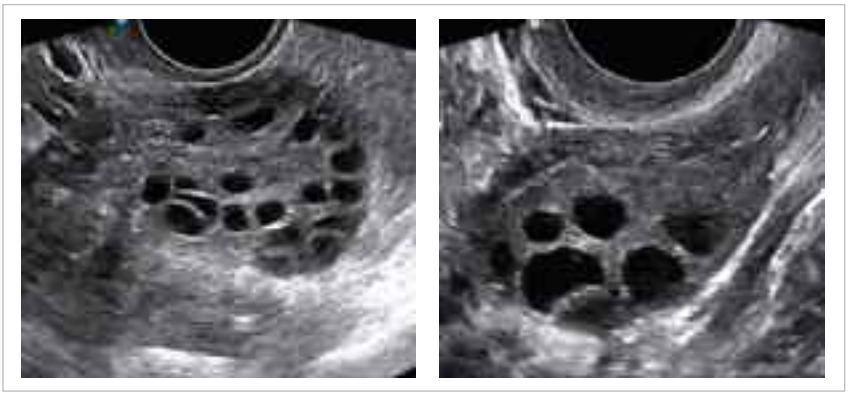

Figure 1: Transvaginal ultrasound images of polycystic ovary *(left)* & normal ovary *(right)*

Clinical features

The clinical manifestations of PCOS may include a range of menstrual abnormalities, infertility, skin manifestations, hirsutism and systemic metabolic disorders. Common menstrual abnormalities may

CASE SCENARIO

A 30-year-old woman presents with a background history of menstrual irregularities and more recent (2-month) delay in her menstrual cycle. She has battled with acne and facial hair for most of her adolescence and adult life, and is regularly shaves under her chin and abdomen (at least once a month). She has tried unsuccessfully to conceive for the last 18 months. Her BMI is 30.5 and she has a waist circumference of 95cm. Her doctor suspects a diagnosis of Polycystic Ovarian Syndrome (PCOS).

include irregular, delayed or absent menstrual periods, breakthrough bleeding or persistent heavy bleeding. Patients may also present with features of excessive androgen secretion such as acne, oily skin, hirsutism (male pattern of hair distribution), alopecia and (rarely) clitoromegaly.

Many patients diagnosed with PCOS may have a high body mass index (BMI) although 25-50% of these women may also have a normal BMI with or without truncal obesity.

Infertility observed in these women may arise from anovulation, infrequent ovulation, hyperandrogenism or deranged LH / FSH secretion. This form of infertility often responds to induction of ovulation.

Acanthosis nigricans is a skin manifestation characterised by a dark, velvety appearance typically affecting the axilla (armpit), nape (back of the neck), area underneath the breast and skin flexures elsewhere in the body. Acanthosis nigricans is seen in 5% of PCOS patients and is typical of the existence of insulin resistance.

In pregnancy, PCOS may also present with gestational diabetes, pregnancy-induced hypertension, pre-eclampsia, preterm and caesarean delivery, recurrent miscarriage, neonatal hypoglycaemia and perinatal death.

Figure 2: Drs Irving Stein and Michael Leventhal described PCOS as a discrete endocrine disorder in 1935

Complications

The long-term consequences of PCOS are usually established by 40 years of age and consistent with a pattern of hyperinsulinaemia arising from insulin resistance.

30 to 40% of women with PCOS develop glucose intolerance while 10% may go on to develop type 2 diabetes mellitus (T2DM). The risk of developing type 2 diabetes is higher in obese women but is also present in lean patients with a diagnosis of PCOS.

The combination of hyperinsulinaemia, hyperandrogenism and obesity, all known risk factors for cardiovascular disease, predisposes the patient towards atherosclerosis, hypertension and myocardial infarction. Patients are additionally predisposed to endometrial hyperplasia and (possibly) endometrial cancer due to the unopposed effect of oestrogen on the endometrium; hence the importance of conducting a full evaluation of all cases of abnormally heavy or prolonged vaginal bleeding.

Patients with PCOS are also at risk of obstructive sleep apnoea and psychiatric disorders such as depression, anxiety, binge-eating and bipolar disorder. All of these features may be directly related to the symptoms and complications of PCOS (obesity, infertility, hirsutism, miscarriage) or indirectly linked with the patient's awareness of the potential complications of the disease.

> “30 to 40% of women with PCOS develop glucose intolerance. 10% may develop type 2 diabetes.

Management

The management of PCOS is guided by its symptoms. The general principles of treatment are as follows:

1. Restoration of menstruation, ovulation / ovulatory cycles and fertility
2. Treatment of acne and hirsutism (features of excessive androgen production)
3. Prevention of long-term complications (as outlined above)

Investigation

- Pregnancy tests (using beta HCG)
- Hormone profile – FSH/LH, Prolactin, TSH, mid-luteal phase progesterone and Androgens (including testosterone and dihydroepiandrosteindione sulphate)
- Imaging – Transvaginal ultrasound scan to assess the ovaries and endometrial thickness

- Sex hormone binding globulin (SHBG) and the total testosterone to estimate the free androgen index, testosterone /SHBG X 100
- Further investigations to exclude other causes of androgen excess (CAH, Cushing's syndrome, androgen-secreting tumours) – 24-hour urinary free cortisol, 17 hydroxyprogesterone
- Tests for infertility – Seminal fluid analysis (SFA), hysterosalpingography (HSG) and laparoscopy (if necessary)
- Additional tests to screen for long-term sequelae – Oral Glucose tolerance test (OGTT), lipid profile, endometrial biopsy

Treatment principles

- Dependent on symptoms as well as patient's desire
- Options – conservative, pharmacological or surgical

Weight loss reduces insulin and androgen levels – a 10% loss in weight can restore ovulation and regular periods. Exercise, diet and lifestyle modification are therefore effective methods of conservative treatment.

Menstrual irregularities may be treated with the combined oral contraceptive (COC) pill (as first line) or Medroxyprogesterone acetate / Norethisterone for 12 days every three months for cases in which the COC pill is contraindicated. The COC pill may be used to treat acne and hirsutism in PCOS patients while offering (simultaneous) protection against endometrial hyperplasia.

Hirsutism may be treated physically by shaving, chemical depilation/bleaching, waxing, plucking, electrolysis and laser therapy. Pharmacotherapy will typically comprise treatment which combines the use of oestrogen with a non-androgenic progestogen such as desogestrel or norgestimate. Dianette is an effective combined oral contraceptive pill which includes a combination of ethinylestradiol (30mcg) and a potent anti-androgen progestogen (cyproterone acetate – 2mg).

Other forms of treatment for hirsutism include spironolactone, finasteride, flutamide and eflorthinine topical cream.

Ovulation induction

These forms of treatment are directed towards ovulation induction and restoration of ovulatory cycles.

Clomiphene Citrate (CC) – a selective oestrogen receptor modulator, is administered at a dose of 50-150mg daily for five days starting on day 2 of the menstrual cycle. Ovulation is achieved in 75% of cases, and 35-40% of these patients are expected to achieve pregnancy. Side effects include hot flushes, bloating, abdominal distension, abdominal pain from enlarged ovaries, multiple pregnancies and ovarian hyperstimulation syndrome.

Letrozole – an aromatase inhibitor is more effective than Clomiphene alone. It is administered at 2.5-7.5mg daily in a similar regimen to Clomiphene Citrate.

Side effects include sweating, bone pain, hot flushes, back pain and nausea. Letrozole carries a lower risk of multiple pregnancies.

Other drugs potentially useful for this purpose include tamoxifen and gonadotrophin injections. *Laparoscopic ovarian drilling* using diathermy is effective in triggering ovulation in women with PCOS – 4 points are drilled to a 4mm depth with 40 watts and for 4 seconds in each ovary. The procedure has replaced the more traditional wedge resection of the ovaries pioneered by Stein and Leventhal in the 1930s. *In Vitro Fertilization* remains a viable option for management if all intervention fails.

Metformin – administered in doses of 1500-2000mg daily in divided doses can be used in women who are clomiphene resistant. It is associated with a higher rate of pregnancy but no difference in live birth rate. Metformin is useful in cases of co-existent glucose intolerance, T2DM and possibly more effective in obese women.

Metformin encourages fertility and controls (PCOS) symptoms by increasing insulin sensitivity in patients with PCOS. Side effects include nausea, vomiting, abdominal discomfort, diarrhoea and loss of appetite.

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Feature Article
Nigeria's Codeine Crisis

Socioeconomic determinants & the resolution of *'wicked'* problems

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About this Article

This article evaluates existing policy responses to the complex problem of opioid misuse in Nigeria. It considers socioeconomic and cultural factors influencing the evolution of the problem and explores a variety of challenges inherent in the administration of an area of public health policy hitherto regarded (in policy development terms) as an intractable 'wicked problem'. The article argues in favour of a broader understanding of the multi-faceted origins of codeine addiction and offers the assertion that policy formulation, though necessary in the present context, is largely insufficient as a 'one-stop solution' to a sociocultural dilemma as convoluted and diverse as the misuse of addictive legally obtainable medicinal opioid substances in a fledgling healthcare economy.

A 'wicked' problem is a social or cultural dilemma regarded as complex, intractable, open-ended and unpredictable. A range of challenging issues such as global warming, drug abuse, nuclear weapons and natural disasters may fall within this category. Rittel & Webber (1973) specified ten characteristics of wicked problems in relation to social policy. Four items are of particular relevance in unravelling the 'wicked' nature of prescription drug abuse in Nigeria.

Human Development Index (HDI)
An internationally accepted measure of 3 fundamental dimensions of human development – long and healthy life, access to knowledge and a decent standard of living[1]. Despite having a GDP of more than US$400 billion, Nigeria's HDI in 2016 was 0.527 (ranked 152 out of 188 UN members states) [2].

Table 1: Key Definitions & Relevance

Misuse of opiates and prescription medication, in general, is a longstanding and continuing public health challenge in Nigeria. Codeine, an opioid substance often used in various preparations as an antitussive (cough suppressant)[3] and analgesic[4] agent, and Tramadol[5] , a synthetic opioid analgesic, usually prescribed for pain of moderate to severe intensity are creating drug-dependent users across a broad spectrum of cultures and social classes throughout the country.

Images of hijab-wearing teenagers apparently addicted to codeine and similar opioid substances have been extremely prominent on social media and in local and international news coverage in recent months.

A sense of local outrage demonstrated amongst citizens, and negative global publicity generated by this problem has prompted a series of highly emotive responses from a cross-section of civil society in addition to a number of policy capitulations from government-affiliated agencies[6].

A seemingly inexorable rise in the number of young and married women addicted to opioid substances in the more socially conservative (northern) states of Nigeria, such as Kano and Jigawa, is substantiated mainly by anecdotal evidence and opinion pieces based on news media reports[7].

As is the case in the study of other issues of public health significance in Nigeria' health sector, an understanding of the scope and exact nature of the problem is hindered significantly by the absence of much-needed empirical data to support articulation of a public health policy response. Despite suggestions of an emerging problem in vulnerable population groups with particular sociocultural patterns and lifestyles, the socially disruptive consequences of opiate addiction are most certainly not confined to communities residing in any particular region of the country. The consensus view, therefore, is of a complex and challenging health and social care problem, approaching epidemic proportions and worthy of a strategic national response.

Epidemiological origins

In reality, Nigeria has over the past three decades, endured the challenges of one form of drug addiction problem or another. In a 1991 review of the clinical implications of drug abuse in Nigeria, Abiodun (1991), established the longstanding nature of the problem as follows – *'drug abuse has become a major public health problem in Nigeria. Alcohol, cannabis, psychostimulants and hypnosedatives are the most commonly abused drugs. Drug abuse in the country now starts at an early age and cuts across all age groups*[8]*.'*

In May 2018, the Director-General of the National Agency for Food and Drug Administration and Control (NAFDAC) issued a statement suggesting the reason for the current codeine crisis to be *'…inadequate NAFDAC presence at various ports of entry, leading to significant levels of smuggling and importation*

of considerable amounts of products with potential for abuse and unregulated distribution.'

The statement goes further to identify a lack of multidisciplinary stakeholder collaboration and inadequate monitoring of open markets by agencies such as the Pharmacists Council of Nigeria (PCN), NAFDAC and the Federal Ministry of Health (FMoH) as further reasons for enforcement failures leading to the current situation.

However, the most cursory reflection on the facts of the matter highlight two critical issues of importance to the construction of any informed critical appraisal of the subject under discussion – *Why, in the first place, is there a high demand for unlicensed use of opiate-related medicines? More to the point – Is there an epidemiological reason for the high use of Codeine and Tramadol in particular demographics and society in general?*

In attempting to resolve the problem of opiate misuse in present-day Nigerian society, therefore, there is a crucial need to articulate a clear understanding of the spectrum of sociocultural triggers potentially responsible for the dilemma that confronts its citizens. The next few paragraphs will attempt a broad categorisation of these triggers in general terms.

Inequality & sociodemographic predispositions

Nigeria has an estimated population of 180 million people comprising more than 250 ethnic groups speaking (approximately) 500 languages and dialects. 50% of the population are urban dwellers, about 50% are Muslim, 40% Christian and 10% Animist. Most of the community is young with roughly 42.5% under the age of 14 years[9].

Nigeria is also a country of extreme paradoxes. Despite having a GDP of over US$400 billion, the country's Human Development Index (HDI) in 2016 was 0.527 (ranked 152 out of 188 UN members states[10]). As Oxfam have taken great care to point out in the past, 'Nigeria is not a poor country, yet millions are living in hunger'. The charity estimates the combined wealth of the five wealthiest men in Nigeria at £29.9billion, a sum capable of ending the extreme poverty of its people on a national scale[11].

Between 1960 and 2005, approximately US$20 trillion was unlawfully appropriated by public office holders representing several governing regimes. In 2012, Nigeria spent 6.5% of her national budget on education and 3.5% on health. By comparison, Ghana spent 18.5% and 12.5% respectively on these sectors.

These statistics underscore an essential and incontrovertible principle that countries with high levels of inequality perform poorly in the development stakes. Pickett and Wilkinson in their 2009 book titled '*the spirit level: why more equal societies almost always do better',* describe 'the pernicious effects' of inequality on society and recognise substance misuse as one of 11 health and social-related problems worsened by the current dynamics of unequal wealthy societies[12].

Sociocultural dimensions of substance misuse & poor mental health

The sociocultural factors underlying individual and societal predispositions towards substance misuse may be considered in terms of 3 important themes – *Entitlement, Embitterment and Estrangement.*

These '3 E's' are indeed simplifications of complex socio-cultural phenomena which although unlikely to survive robust critical scrutiny, offer considerable insight into the psychological and social underpinnings of drug misuse in present-day Nigerian society. Also, they provide a basis upon which to begin an exploration of cause, correlation, associations and effects of this clear and present danger to societal cohesiveness and psychosocial wellbeing.

1. Entitlement

Civil society in Nigeria, with its not insignificant layer of wealthy individuals and families, demonstrates a distinctly plutocratic inclination towards ostentatious displays of wealth, patronage and influence. The self-indulgent excesses of many of the rich and famous have tended to involve a liberal attitude towards drug-taking and associated forms of illicit and anti-social behaviour.

The sense of impunity and feeling of entitlement often demonstrated by this influential class of society, combined with the twin problem of experimental curiosity and peer group pressure influence experienced especially among the youth, may contribute significantly to the misuse of all classes of drugs, including opioids, in the general population[13].

2. Embitterment

One incontestable feature of an unequal plutocratic society is the feeling amongst the majority of its citizens, of being left behind. The daily struggle for 'survival' is ironically not a problem confined strictly to the lower segments of society but is also the lived reality of the professional classes.

The sheer stress of living conditions in such an environment brings about a profound feeling of embitterment, based on a sense that society is inherently unfair and that material resources are limited to those who by patronage or mutual self-interest have existing relationships with those in power. Such embitterment is often manifest in individuals by way of poor mental and physical health, and there is considerable evidence in support of a strong bi-directional relationship between depression and substance misuse.

A culture of early marriage, early parenthood and resentment of restrictive cultural norms imposed on women in some communities and families may also contribute towards a state of depression and subsequent drug addiction. Such women, despite these restrictions, are often introduced (usually through electronic and social media) to

alternative cultures and lifestyles, which may include drug-taking activity and other similar practices.

3. Estrangement

At the bottom of the pile in an unequal society, are young people and families consigned to perpetual penury by societal strictures. Lorant et al. (2003) assert that low socioeconomic status is generally associated with high psychiatric morbidity and inadequate access to healthcare.

The reality of less sophisticated coping mechanisms, destabilising life events, undue stress exposure and weaker social support systems are some of the risks disproportionately borne by the poor in society.

It is therefore conceivable, in at least a minority of cases, that in seeking to alleviate the burden of poverty imposed by these unfair and opportunity-denying societal arrangements, a career in criminality is seen as the most viable way out.

The use of illicit substances to reduce anxiety, obviate the fear of capture or to lessen the burden of guilt having committed a series of violent misdemeanours is almost always inevitable. The correlation between the criminal underworld, drug dealing and substance misuse is well established and offers an additional path to the problem of opioid drug dependency.

Responding to *'wicked'* dynamics

A 'wicked' problem, often a social or cultural problem, is a problem generally regarded by society as complex, intractable, open-ended and unpredictable. A range of challenging issues such as global warming, drug abuse, nuclear weapons and natural disasters may fall into this category. Rittel & Webber (1973) specified ten characteristics of wicked problems in relation to social policy[14].

Four applications of this principle are of particular relevance in unravelling the 'wicked' nature of prescription drug abuse in Nigeria.

1. **Incomplete and contradictory knowledge** about the full extent of opioid drug use and dependence in Nigeria.
2. A wide variety of people with **very different but strongly held opinions** about the nature of the problem – A prominent northern leader was quoted as blaming Ibo traders with local Hausa accomplices for the codeine problem in Kano.
3. There is an as-yet uncalculated **financial burden to be borne** in addressing the complex issues raised by NAFDAC at the same time as raising public health awareness (as recommended by the CCRWG) and providing adequate infrastructural and human capital resources for rehabilitating dependent opioid users.
4. The opioid addiction crisis is part of **a matrix of interconnected social, cultural and economic problems** that assail the body politic and civil society in Nigeria.

In a memorandum submitted on the 1st of May 2018, the Codeine Control and other Related Matters Working Group (CCRWG) outlined 13 recommendations (summarised in *table 2*) designed to 'halt the menace of codeine, tramadol and other related substances of abuse.'

The next few paragraphs consider the immediate actions recommended by the CCRWG and attempt to evaluate the likely impact of these recommendations in light of the 'wicked' nature of the problem they propose to resolve.

One of the first observations to note, in considering the detailed set of recommendations submitted by the CCRWG is the absence of an appropriate measure of success to indicate at some suitable stage that 'problem' has been resolved.

1. NAFDAC to suspend issuance of import permits for codeine and tramadol
2. Recall of all cough preparations in circulation
3. Manufacturers to account for the disposal of codeine-containing preparations and tramadol
4. Deadline for manufacturers to replace codeine-containing cough syrups with appropriate substitutes
5. Audit of all codeine-containing cough syrups in the country
6. Reactivation of prescription policy
7. Strengthening of the Pharmacists Council of Nigeria (PCN)
8. Ministry of Health to collaborate with regulatory agencies to strengthen existing legal instruments
9. PCN to develop information, Education and communication materials on drug abuse
10. Ministry of Health to partner National Orientation Agency (NOA), Nigeria Football Federation (NFF), Actors Guild of Nigeria, Performing Musicians of Nigeria and other celebrities to drive national campaign against drug abuse
11. Ministry of Health to ensure drug treatment intervention for substance abusers across the spectrum of healthcare delivery
12. Civil society organisations to be supported to deliver effective sensitisation, prevention, treatment and rehabilitation services on behalf of the population
13. Ministry of health to continue advocacy through the legislative arm of national government, state governors, religious leaders and traditional leaders

Table 2: 13 CCRWG Recommendations, 1st May 2018

Additionally, owing to the multi-faceted nature of the problem that exists, it is likely to prove challenging to conclude in the present circumstances that measure 1 (import restrictions) would necessarily deal with the problem or that measure 2 (product recall) is potentially enforceable in the current environment.

The appeal for collaborative joint working between various government agencies, regulatory bodies and elements of civil society appears not to appreciate in full, the divergent (inter-agency) interests at play in undertaking such endeavours.

'Globalising' our approach

It is of course, much easier to critique potential solutions already proffered, that to generate effective alternatives anew. However, given the complicated nature of the problem under review, it is essential to resist the ever-present temptation to find a 'one-stop' solution to the public health challenges of this social health dilemma. It must indeed be said that a single comprehensive human response is almost never possible.

Nevertheless, the working recommendations offered by the CCRWG are an important staging post in a longer journey towards coming to grips with the sociological

and public health challenges presented by drug misuse. They represent a necessary opportunity to reflect on the origins and effects of the opiate abuse crisis in Nigeria and to formulate a coherent and rigorous strategic response designed to address the problem at hand.

On the 5th of February 2018, the Nigerian government launched 4 opiate-related policy documents.

- National Policy for Controlled Medicines
- National Guidelines for Quantification of Narcotic Medicines
- National Guidelines for the Estimation of Psychotropic Substances and Precursors
- National Minimum Standards of Drug Dependence

Table 3: Codeine-related policy documents, FMoH, 5th Feb 2018

Nigeria would most certainly benefit from the adoption of a more global approach to the resolution of modern problems as well as glean further understanding from the policy responses of other nations with contemporary experiences of a similar nature. It may be useful for example, to consider how the federal and state governments in the United States are dealing with their Oxycontin abuse epidemic or perhaps to understand how the Dutch and the Portuguese governments have so far confronted the problem of drug abuse in their own environments.

Far from attempting to suggest that these countries have evolved the perfect sociological and policy solutions and that all we need do is 'copy' their 'tried and tested' initiatives, this is no more than an exhortation to expose ourselves to the accumulated wealth of global knowledge on the subject, and to adapt transferable learning in dealing with our own problems.

Having said this, the government's implementation of the 'National Drug Control Master Plan of Nigeria (2015-19)[15] in response to the EU-funded collaborative project titled, 'Response to Drugs and Related Organised Crime in Nigeria (2013 – 2017)[16]' is a significant step in the right direction. 4 hugely important policy documents *(table 3)* published subsequently (on the 5th of February 2018) reflect a culmination of the work so far conducted in this area and the fruit of broader collaboration in attempting to resolve the local effects of a more global and wide-ranging phenomenon affecting the lives of people of all ages, cultures, nationality and socioeconomic backgrounds[17].

In conclusion

The epidemiological origins of the substance misuse problem in Nigeria are in very many ways, unique. The peculiarities of Nigeria's socioeconomic, cultural and public health landscape in addition to the overall construction of the nation's civil society are pointers to the need to formulate our own robust and fit-for-purpose responses to the questions raised by this extremely troubling issue.

There is an urgent need to deal comprehensively with the wider governance issues presented by the administration of prescription medication in general and more specifically with the regulation of unintended uses of opiate medication and support for individuals affected by substance misuse. Clarifying the way in which frame the problem and therefore go about finding solutions is an important part of this process.

It is not unreasonable to suggest that if the policy solutions so far proposed do not, within a reasonable timeframe, succeed in bringing about the desired level of correction to this extremely challenging and complicated problem, there exists a realistic prospect of significant socioeconomic and public mental health upheaval in the years to come. This article is intended as a small contribution to our understanding of the intricacies of the journey ahead.

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Clinical Update
Bariatric surgery & type-2 diabetes

Metabolic surgery is now an established option in the treatment of obese patients with type-2 diabetes

Abuchi Okaro

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& Euracare Specialist Hospital, Lagos.

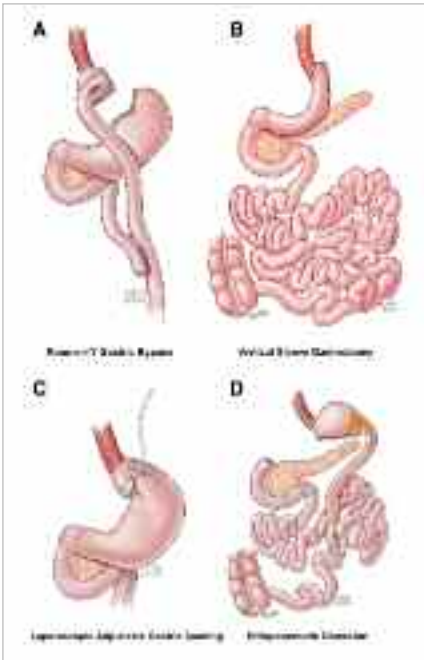


Fig 1: Bariatric/Metabolic Surgical procedures *(Rachel L. Batterham, and David E. Cummings Dia Care 2016; 39:893-901)*

The accelerating pandemic of diabetes is recognised as one of the most significant public health dilemmas of our time[1]. The personal, health and societal costs of the disease are enormous, with populations in many parts of the developing world predicted to have a much increased and disproportionate burden of diabetes by the year 2040[2].

The micro and macro-vascular complications of type-2 diabetes and associated cardiovascular morbidity (and mortality) have wide-ranging implications for public health [3, 4].

What do we know about the current and future burden of diabetes in Nigeria? The figures are largely unknown. The World Health Organization (WHO) estimates that approximately 5% of the country's adult population is diabetic, 40% of which are either obese or overweight *(fig 4)*.

Despite growing evidence that bariatric (metabolic) surgery offers a potentially cost-effective treatment option for obese patients with type-2 diabetes, most established algorithms have until recently failed to fully recognise its benefits as a standard form of treatment for diabetes. This article explores the evolution of this treatment and the evidence underpinning its increasing use as a viable method of treating type-2 diabetes and associated metabolic conditions.

Types of Metabolic surgery

Bariatric (or Metabolic) surgery remains an exciting and rapidly advancing branch of gastrointestinal surgery with origins dating back to 1952[5]. As one would expect, the surgical procedures performed have changed significantly over the years. *Fig 1* illustrates the four primary operations routinely performed in this field.

1. Roux-en-Y Gastric Bypass
2. Vertical Sleeve Gastrectomy
3. Laparoscopic Adjustable Gastric Banding
4. Biliopancreatic Diversion

Glucose homeostasis & GI surgery

The paradigm shift observed in the management of certain metabolic conditions is based entirely on emerging scientific evidence strongly suggesting that weight loss (or bariatric) surgery is capable of achieving resolution of long-term chronic diseases such as diabetes.

In 2007, an accumulation of these developments and increasing acceptance of the broader applicability of this form of surgical intervention resulted in the redefinition of the group of bariatric surgery procedures performed for the sole purpose of treating metabolic disease. Metabolic surgery was the term used to identify this group of surgical procedures.

The opportunity to conduct a series of complex operative procedures designed to rearrange the gastrointestinal anatomy and achieve enhancements in physiological and organ function offers many additional advantages to the management of chronic disease.

Corresponding improvements in glucose homeostatic control are associated with changes in gut hormones, bile acid metabolism and intestinal microbiomes. These result in the reduction of glucose production in the liver, increased glucose utilisation in the tissues, increased insulin sensitivity and enhanced β-cell function, all of which occur independently, regardless of weight loss *(fig 2)*.[6]

Bariatric surgery & type-2 diabetes guidelines

Although metabolic surgery is gaining rapid acceptance in treatment centres around the world, several obstacles to its universal uptake remain in existence in different regions. A series of consensus meetings held over the course of the last decade resulted in a series of agreed amendments to diabetes treatment guidelines now in use in various centres. In 2016, the 2nd Diabetes Surgical Summit (DSS 2) released the

strongest ever endorsement of the procedure[7]. Metabolic surgery is now increasingly recommended as an established option (alongside lifestyle and medical treatment) in the management of obese patients with type-2 diabetes *(fig 3)*. Studies have demonstrated consistently better outcomes (specifically blood glucose and HbA1c control) in this group of patients compared with pharmacological treatment over the medium term (15 years or less). [8, 9,10,11,12,13]

Setting up a service

There are several essential considerations in setting up a metabolic surgery service.

1. **Multi-disciplinary team (MDT) approach** – The MDT should consist of the following core specialists – *bariatric surgeon, bariatric anaesthetist, an endocrinologist and bariatric dietitian*. Other frequently involved specialists may include the cardiologist, respiratory physician, psychologist and physiotherapist.
2. **Patient selection** – Bariatric/metabolic surgery patients frequently have one or more chronic disease comorbidities. Careful selection, preparation and preoperative assessment of patients are critical to ensuring good patient outcomes. Hospital infrastructure is also critical. Hospitals offering this service must be equipped to offer minimally-invasive and complex gastrointestinal surgery.
3. **Outcome measures** – It will be essential to measure (and monitor) service delivery outcomes by internationally-accepted evidence-based standards and treatment guidelines. Procedural outcome measures such as percentage excess weight loss (%EWL) and quality of life scoring may be applied to good effect. However, the most reliable and straightforward parameters are as follows:

- Average post-operative length of stay (12-72 hours)
- Post-operative leak rate (3% or less)
- 30-day Operative mortality (0.4% or less)

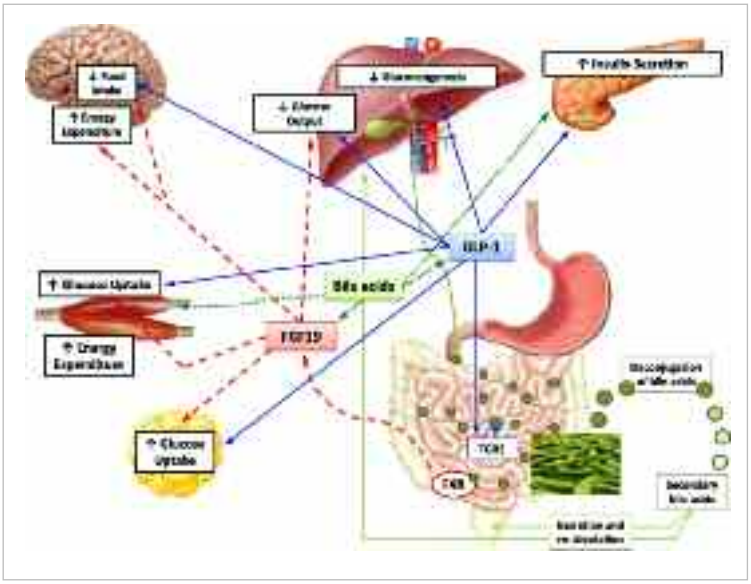


Fig 2: Glucose homeostasis in the GI tract *(Rachel L. Batterham, and David E. Cummings Dia Care 2016; 39: 893-901)*

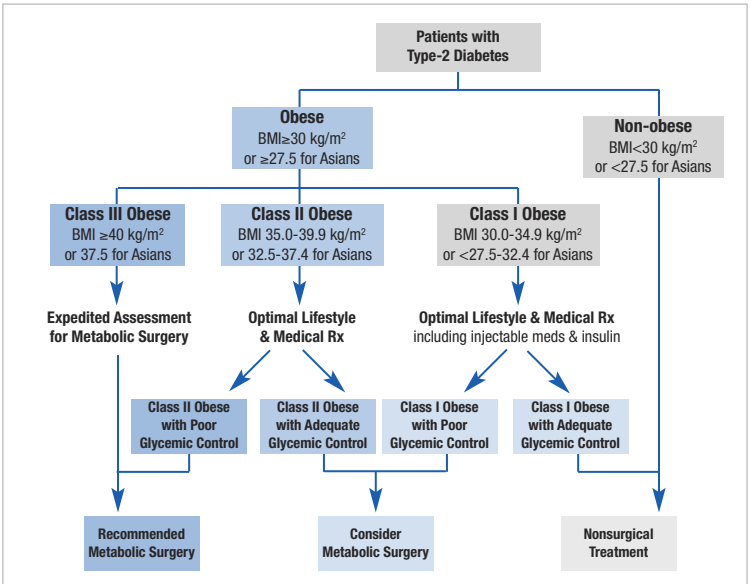


Fig 3: Metabolic surgery and type-2 DM guidelines

> Careful selection and pre-op assessment of patients are critical for good patient outcomes.

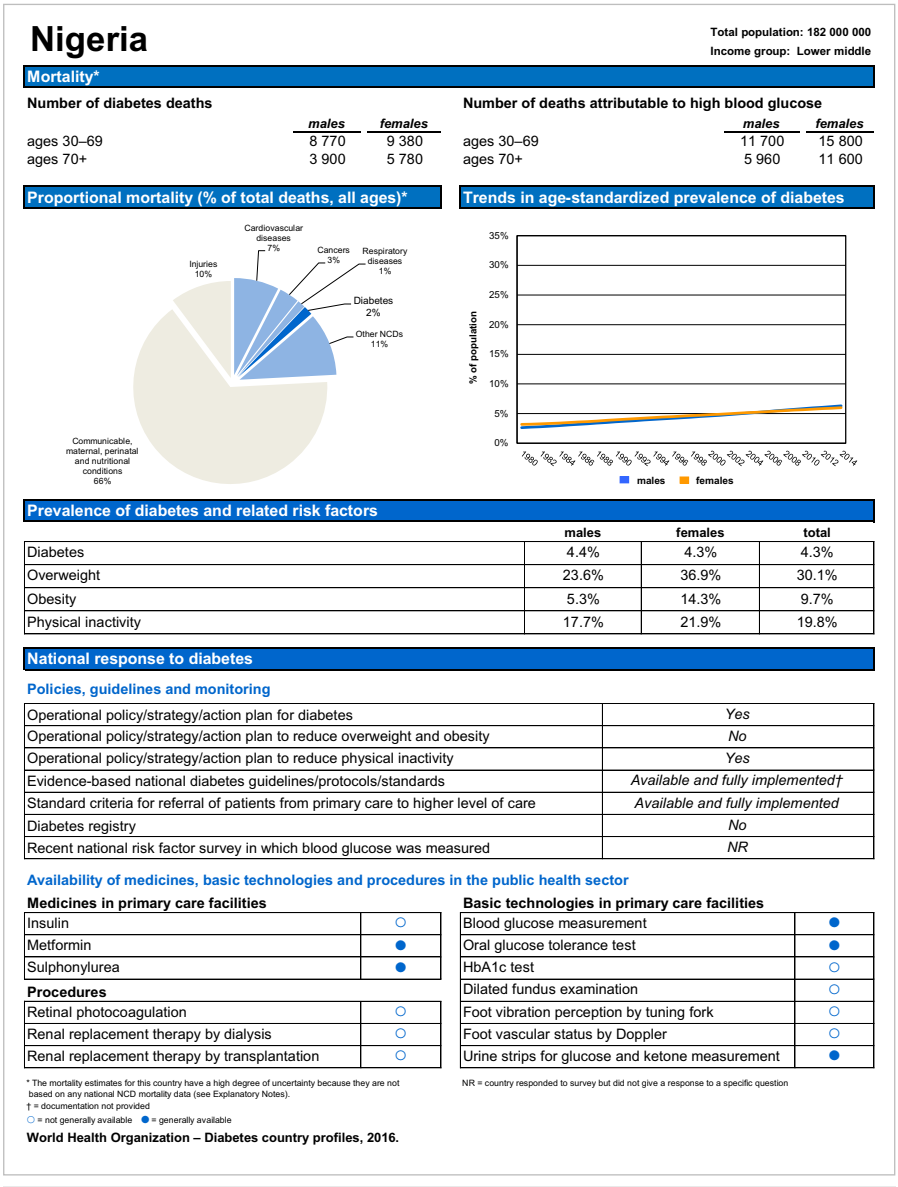
In conclusion

An increase in demand for bariatric and metabolic surgery services in Nigeria may be predicted by the combined effects of a rapidly increasing prevalence of type-2 diabetes and the overall state of evidence-based diabetes care across the country. There is firm evidence to suggest the likelihood of significant benefit from this procedure especially in obese patients with type-2 diabetes and other forms of chronic metabolic disease.

The scale of future demand and capacity required for Nigeria's healthcare system to meet that demand remains unknown. However, judging by the prevalence of diabetes-related comorbidity (and mortality), a substantial and coordinated response will be required to address this growing problem.

Metabolic surgery is gaining acceptance as an established component of diabetes guidelines all over the world. The main obstacles to delivery locally will be cost, and a shortage of appropriately trained clinical personnel organised specialist facilities and support infrastructure.

Patients are likely to seek treatment abroad until the capacity and quality of healthcare services in Nigeria improve. As more specialist centres turn their attention towards innovative treatments such as metabolic surgery, patients will have more options available to them for treatment of a variety of chronic conditions, including treatment of type-2 diabetes.



Nigeria

Total population: 182 000 000
Income group: Lower middle

Mortality*

Number of diabetes deaths

	males	females
ages 30–69	8 770	9 380
ages 70+	3 900	5 780

Number of deaths attributable to high blood glucose

	males	females
ages 30–69	11 700	15 800
ages 70+	5 960	11 600

Proportional mortality (% of total deaths, all ages)*

Trends in age-standardized prevalence of diabetes

Prevalence of diabetes and related risk factors

	males	females	total
Diabetes	4.4%	4.3%	4.3%
Overweight	23.6%	36.9%	30.1%
Obesity	5.3%	14.3%	9.7%
Physical inactivity	17.7%	21.9%	19.8%

National response to diabetes

Policies, guidelines and monitoring

Operational policy/strategy/action plan for diabetes	*Yes*
Operational policy/strategy/action plan to reduce overweight and obesity	*No*
Operational policy/strategy/action plan to reduce physical inactivity	*Yes*
Evidence-based national diabetes guidelines/protocols/standards	*Available and fully implemented†*
Standard criteria for referral of patients from primary care to higher level of care	*Available and fully implemented*
Diabetes registry	*No*
Recent national risk factor survey in which blood glucose was measured	*NR*

Availability of medicines, basic technologies and procedures in the public health sector

Medicines in primary care facilities

Insulin	○
Metformin	●
Sulphonylurea	●

Procedures

Retinal photocoagulation	○
Renal replacement therapy by dialysis	○
Renal replacement therapy by transplantation	○

Basic technologies in primary care facilities

Blood glucose measurement	●
Oral glucose tolerance test	●
HbA1c test	○
Dilated fundus examination	○
Foot vibration perception by tuning fork	○
Foot vascular status by Doppler	○
Urine strips for glucose and ketone measurement	●

* The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data (see Explanatory Notes).
† = documentation not provided
○ = not generally available ● = generally available
NR = country responded to survey but did not give a response to a specific question

World Health Organization – Diabetes country profiles, 2016.

Fig 4: World Health Organization (WHO) Diabetes country profile - Nigeria (2016)

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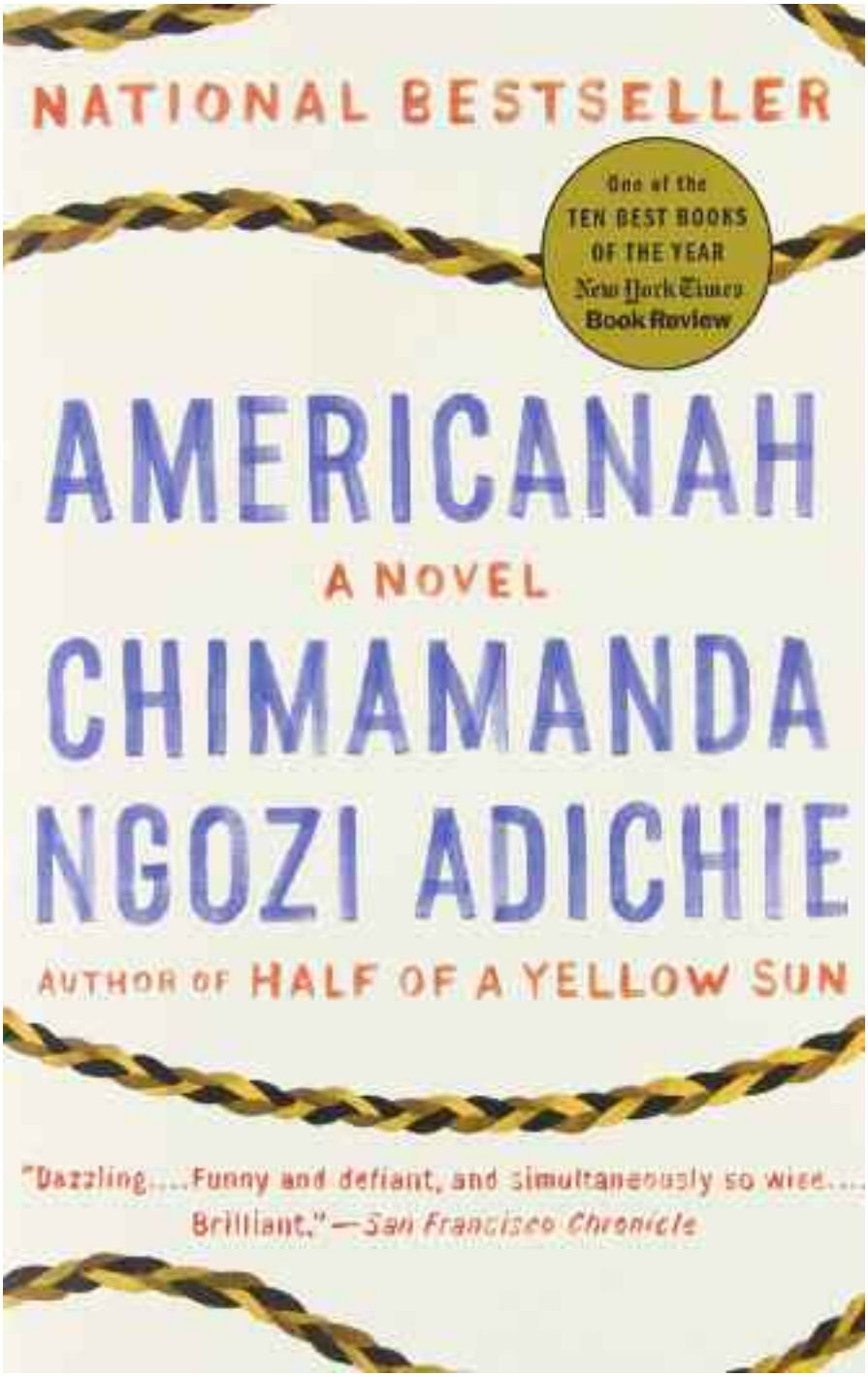

Americanah

What Chimamanda's third novel does not explicitly tell us about health and social care in developing countries.

Mariam Toye

Dr Mariam Toye graduated from the College of Medicine of the University of Lagos in 2016. She currently works as a junior doctor in a busy Lagos hospital. Mariam has a keen interest in social media and technology, the literary arts, social enterprise and global health issues.

The dusk of Nigeria's military era sees a fiery teenage girl called Ifemelu (perhaps a play on the word, *"female"*) whose significant figures in life were a mother overly absorbed in her spirituality, a father failing at providing stability for his family and a lover with big dreams. She goes to live with an aunt whose newly enhanced social status is the direct benefit of an amorous relationship with an influential army General.

The sudden mysterious death of the country's military dictator has drastic consequences for Ifemelu's fortunes. Aunty Uju bears a son, Dike and both are sent by the General, to live in the US. Ifemelu joins them soon afterwards. There she struggles through college, devising various ways and means of survival. Some of these methods test her sense of dignity and self-worth, bringing her within intense proximity of the question of race and forcing her to confront society's perception of her identity as a black-African female immigrant in the middle-class white American suburb of Princeton. Back home, the only form of "othering" Ifemelu faced had been that of social class, not colour. Her experiences culminate in a successful blogging career focused almost entirely on the subject of race.

Ifemelu's boyfriend, Obinze does not quite make it to his El Dorado! Stuck in London, he fares much worse in his ambitions than Ifemelu. Obinze manages to find work as a toilet cleaner. His feelings about the often dehumanising nature of his status as an illegal immigrant are captured most vividly in the section of the book where one day, he arrives at work to find a mound of faeces on the toilet floor.

Immigration has long been an issue of intense international controversy, more especially in European countries over the last two decades. Amongst many other themes, Americanah shines a light on the global migrant crisis. Many young Nigerians, not unlike Obinze and Ifemelu, have made the crossing, first across the Sahara and then through the Mediterranean in dire environmental conditions (often via organised human trafficking rings) as they journey endlessly in search of the proverbial Golden Fleece.

Many of these dreams have been stranded in staging posts such as Libya and subjected to the horrors of extortion, modern slavery, organ harvesting and forced prostitution.

Some have moved on and been "accepted", in countries such as Spain, Italy, Germany and the United Kingdom. Many, however, have been repatriated and returned home, penniless, abused, depressed and filled with anger and regret.

Ifemelu works as a nanny for a white suburban family, is exploited by a white tennis coach, attends college in a predominantly white town and finally starts a relationship with Curt, a white male from whom she later disengages before starting to date Blaine, an intellectual African American with whom she soon discovers she has not all things in common. However, in neither of these relationships does Ifemelu find the reassuring sense of fulfilled familiarity that she had come to take for granted with Obinze, her first love.

Through her blog, Ifemelu finds an outlet for her frustrations concerning race and social acceptance in a foreign land, and yet she knows she has fared much better than many of her contemporaries back home in Nigeria. She finds the feeling of not quite belonging, coupled with her observation of young Nigerians returning from the diaspora to lead successful careers in Nigeria quite unsettling and decides eventually to return home.

Obinze, on the other hand, has had a much rougher experience in his time in England and had made the decision to return earlier. He becomes an established businessman, rubbing shoulders with politicians and captains of industry. However, he finds that his marriage lacks the spark he had previously enjoyed with Ifemelu. The distance had taken its toll on their relationship and poor communication predictably proved inadequate in sustaining it.

Though less educated than she was, he now has a higher social standing in the fast-growing economy of a newly re-democratised Nigeria. Deep down, he is disillusioned by the failure of his newly-acquired wealth to accord him a certain deeply-desired sense of joy and happiness. Kosi, a former beauty queen, is the quintessential trophy wife who possesses everything a woman could want except the love of her husband. Beneath the parties, fine jewellery and affluence-enabled beauty, she leads quite an empty, unhappy life.

Ifemelu and Obinze rekindle their youth in a secret love affair. Just as we are left entirely in the dark concerning the fate of Kainene, twin sister to Olanna in Half of a Yellow Sun, Americanah ends in the classic open-ended Chimamandan fashion. We are left to wonder how Obinze and Ifemelu continue their lives together. Does he divorce Kosi and make Ifemelu the wife of his dreams or do they keep up appearances and continue to conceal their clandestine love affair?

In this book, Adichie highlights the many ways in which culture and socioeconomic differences influence the experiences, prospects and aspirations of individuals on a global scale. The sociological issues highlighted as a result of the interactions described in this book are the same as raised in all arguments concerning (sociocultural) determinants of access to health and social care.

Adichie highlights the many ways in which cultural and socioeconomic differences influence the experiences, prospects and aspirations of individuals on a global scale.

Although heightened by the obvious racial and cultural differences brought into focus by issues such as immigration, these differences in socioeconomic prospects are apparent within individual communities all over the world. The sense of oppression that prompted Ifemelu's emigration from Nigeria is rooted in the austerity of her childhood and the associated social dysfunction that followed these difficulties. In this respect, she is representative of successive generations of Africans, young and old, who have embarked upon the existential and life-transforming odyssey of journeying away from their roots.

The same can be said for the experiences of socioeconomically disempowered white (and non-Caucasian) citizens of many European nations. One of the duties of a responsible society is to organise its resources for the optimum benefit of its citizens and to enhance the prosperity of its communities in such a way as to guarantee the entitlements of good health, access to essential resources, economic prosperity and overall social wellbeing.

The United Nations (UN) Human Development Index (HDI) considers three essential elements – long and healthy life, access to knowledge and a decent standard of living as fundamental criteria for assessing the development of a country (and prosperity of its people). It is indeed a truism that nations with a high HD index tend, on the whole, to enjoy the corresponding benefits of economic prosperity, good population health and higher than average life expectancy.

It is indeed the case that migration from one environment to another does, to a considerable extent, involve the transfer of many of the advantages of the more prosperous society to the benefit of the "visiting" individual.

Citizenship, of course, is a concept based on the principle of individual contribution and therefore, the corresponding right to derive benefits. The feelings of suspicion and almost inevitable hostility arising from the subject of migration may be a direct result of one or more of a range of heartfelt viewpoints.

Ensuring that individual citizens are well-catered-for is an essential and fundamental step towards halting the individual and societal challenges posed by immigration worldwide.

Perhaps a failure of these arrangements in certain parts of the world is responsible for the decades-long pursuit of the oft-elusive Golden Fleece, a prize on occasion sighted by many, but not without considerable pain, loss of innocence and struggle even amongst the strong and well-equipped of African society. *Adieu*, Ifemelu. *Chapeau* indeed!

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Reflections
Innovative private sector funding of healthcare

Alero Roberts - Interview with **Clare Omatseye**

Clare Omatseye is Managing Director/CEO at JNC International Limited and President of the Healthcare Federation of Nigeria (HFN)

Alero Roberts is a public health consultant and senior lecturer in the Department of Community Health and Primary Care, College of Medicine University of Lagos.

This interview was conducted at the Medicine, Accountability and Law Conference, organised by BeyHealth Consulting and BeyHealth Foundation for Health and Social Care in collaboration with the Nigeria Bar Association Section on Business Law (NBA-SBL) on the 23rd - 24th of January 2018.

> "We need the National Health Act implemented in a way that gives the NHIS additional capital and access to funding for routine requirements.

AR: Clare, it has been an absolute honour to have you at the Medicine, Accountability and Law conference this year. You mentioned several key points during your talk that I would like to explore further with you. First on my mind is your work with the Healthcare Federation. Tell us a bit about this.

CO: The Healthcare Federation of Nigeria, otherwise known as HFN, was set up about four years ago as it became apparent that healthcare delivery in Nigeria was becoming extremely fragmented. It was becoming increasingly difficult for healthcare provider bodies in the private sector to come together to speak with one voice about a range of subjects of relevance to their shared interest in the healthcare industry.

So, we have assumed the position of a single umbrella body that represents the interests of an entire spectrum of providers involved with private sector healthcare – from physiotherapists, doctors and nurses to captains of industry in the pharmaceutical area and even including practitioners who teach in private universities – the full range of healthcare services, the entire value chain.

Out of pure necessity, we represent the voice of private sector participation, majorly because we needed an advocacy body to speak with the government on a range of cross-cutting and critical issues such as healthcare financing, human resources for healthcare capacity development and so forth.

But our most significant thrust over the last few years has been a focus on a great deal of advocacy directed towards government – indeed, how do we partner with government recognising that government cannot do it alone? We, the private sector, provide 60 to 65 per cent of the healthcare in this country and we need to be collaborative and articulate in the way we speak with the government with one voice at the same table to provide access to quality healthcare on behalf of Nigerian patients.

AR: Yes, that is so important. As a lecturer, I am very often inundated with enquiries from students who are eager to do much more. How does one get involved with the Healthcare Federation?

CO: The Healthcare Federation offers three distinct types of membership. We have the corporate membership which allows the opportunity for corporate businesses to become members by paying a fee. There is an individual membership which applies to people who wish to support the HFN effort in their capacity as private citizens. Association membership serves to bring trade bodies and professional organisations that cater to multiple partners into the discussion.

...And then we have the volunteers. Strictly speaking, the Healthcare Federation is a tremendous volunteer effort. The volunteers are incredible! They give their time, talent and very often their treasure - of immense value to us as an organisation. Lobbying is not easy… it is extremely difficult indeed, but it is equally satisfying to see the results. We are presently involved in lobbying government on a couple of policies to help unlock the potential of the private sector.

The private sector provides 60 to 65 percent of the healthcare in Nigeria

The first one is on incentivising healthcare investment in Nigeria. We were able to pass it through the National Council on Health last year and are now hoping for it to go through the Federal Executive Council prior to it being handed over to the NIPC (National Investment Promotion Council).

The purpose is to help lower the barriers to entry on behalf of businesses participating in the healthcare sector, through practical measures such as tax rate incentives, duty waivers and access to land – you know, those things that currently make it hard to do health care business in Nigeria. If we are able to lower these barriers to entry, then it's a win-win situation for everyone – it means we provide scale, encourage competition and benefit the healthcare consumer and the economy all at once. It's a hugely collaborative approach.

We are also working on the new policy on public-private partnership because in the past, …as you are aware the system was not originally intended for healthcare, it has been used majorly for building bridges and airports. However, this is an extremely important instrument, but one which must be made fit-for-purpose.

AR: You talked a lot about strategic purchasing in your session. I was intrigued by this. So, how does this all fit with the question of strategic purchasing?

CO: We were talking majorly at this conference today about financing. One of the challenges confronting healthcare financing in developing economies such as Nigeria is the healthcare industry's dependence on budgetary allocation from the government, which is approximately 4

> How do we make health insurance mandatory so every Nigerian has access to basic care?

percent of the total healthcare spend and even this seems to be dwindling year on year – we've had 4.2 percent, 4.1 percent and now 3.9 percent this year! It is obvious that the government cannot do it alone, so it is essential that we find innovative ways of providing and funding health care. As I said in my talk, we need to be able to provide funding to support the demand and the supply side of the equation.

So, when it comes to the crunch, what is it that we can do to bridge that divide. Insurance is a big issue. How do we make healthcare insurance mandatory so that every Nigerian has access to basic care? If we can get primary care right, we can then concentrate a little more on secondary and tertiary care.

Let's pay for outcomes and have an innovative way of providing these services

However, the funding challenge ought to be handled as a single problem, so primary healthcare needs are not addressed to the detriment of tertiary care funding requirements. We need to fashion a solution that takes all aspects of the problem into consideration.

Now on to tertiary care. The cost of tertiary care is phenomenal, so we want to push the administration of basic healthcare provision funds through the National Health Act. We, therefore, need the National Health Act implemented in a way that gives the National Health Insurance Scheme additional capital and access to funding for routine requirements and the care of poorer patients.

How do you, in the present circumstances, provide access to care for the poor and needy in potentially catastrophic situations? We decided on the need to set up a separate *"catastrophe fund"*, dedicated to indigent patients unable to afford the cost of life-threatening non-communicable diseases such as cancer, heart disease, open heart surgery, interventional cardiology, kidney transplants and so on – but the biggest of these considerations was cancer.

We put our heads together at that stage, and thought *"…maybe we could pay for a package of care – let's pay for outcomes and have an innovative way of providing these services, rather than spending money on government-initiated capital expenditure all the time."*

It occurred to us that we could put a fund together and encourage private investment in the sector! An initiative like this (with well-defined outcomes) is likely to spur public-private partnerships into action by galvanising support from corporate organisations to provide much-needed infrastructure for public sector healthcare.

I don't know if you are aware of this, but the National Hospital in Abuja over the last three to four months has had a brand new Linear Accelerator set up there. The hospital is providing cancer radiation treatment to well over 40 patients a day. They have a waiting list of over six months and are just about to acquire a brand-new LINAC to help cope with this backlog the next three weeks.

Through a similar partnership discussion, Shell Petroleum Development Company was able to fund the purchase of a linear accelerator. Now let us consider the antecedents of the problem. Over the last 15 years, we have had almost no private investment in the space. We have endured dilapidated and obsolete technology …and you know, sweat the asset for whatever we can extract. Now all of a sudden within three months, we have three new LINACs - I understand another one is soon to be commissioned in Calabar!

AR: Because you are now purchasing the outcome rather than the …

CO: Yes! People are thinking about outcomes, thinking about what they can do to help the indigent patient. So, there is a lot of innovation coming into health care financing and plenty to be said for advocacy in this area. We are very excited, and there's more to come.

AR: Watch this space! Thank you very much, Mrs Clare Omatseye. It has been a most stimulating and insightful conversation. I am encouraging everyone to visit your organisation's website – www.hfnnigeria.com and to get involved as members, corporate partners and volunteers. The key phrase that I am taking away from this discussion is "strategic purchasing". Thank you once again for your time today.

> “It is essential that we find innovative ways of funding and providing health care.

Medico-legal Abortion Law in Nigeria

Cheluchi Onyemelukwe

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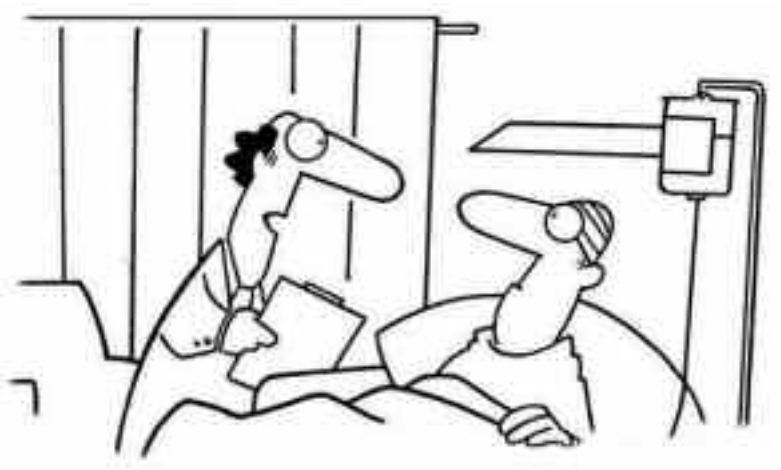

"Any history of malpractice in your family?"

> "Back-street abortions contribute significantly to Nigeria's dismal maternal mortality rates.

The vote to repeal restrictive anti-abortion laws in a recently concluded referendum in Northern Ireland has rekindled the debate on whether a shift in similarly restrictive laws criminalising the practice of abortion should occur in other countries such as Nigeria.

Statistics indicate that a quarter of Nigeria's 9.2 million pregnancies in 2012 were unintended, translating to a figure of approximately 59 unintended pregnancies per 1,000 women between the ages of 15–49[2]. More than half (about 56%) of these unintended pregnancies resulted in induced abortions, 32% in unplanned births and 12% in miscarriages.

Figures from 1996 suggest an estimated 610,000 abortions were performed in Nigeria, compared with a total of 760,000 in 2006[3]. An estimated 1.25 million induced abortions occurred in 2012, equivalent to a rate of 33 abortions per 1000 women aged 15-49[4]. 212,000 women were treated for complications of unsafe abortion in 2012, and an additional 285,000 experienced grave health consequences but were unable to obtain the necessary treatment[5].

Unsafe abortion techniques and "back-street abortions" contribute significantly to the country's dismal maternal mortality rates[6]. Analyses of Google searches suggest a greater interest in abortion pills (e.g. Misoprostol) from countries like Nigeria and Ghana, where abortion laws have historically been more stringent[7].

Due to a culture of widespread under-reporting, the figures under discussion are unlikely to represent a complete picture of abortion activity. However, there is an unmistakable impression of an upward incidence of abortion in Nigeria.

Abortion law in Nigeria

The legal position on abortion in Nigeria is set out in the provisions of its criminal law, comprising effectively – the Criminal Code, applicable in the southern part of the country and the Penal Code, in operation its northern states[8]. The combined effect of Sections 228, 229, and 230 of the Criminal Code is to the effect that any woman who, with intent to procure her own miscarriage unlawfully administers to herself any poison or other noxious thing or any person who assists her in doing the same is liable to imprisonment for a period ranging from three to fourteen years[9].

In like vein, Section 232 of the Penal Code provides, *"Whoever causes a woman with child to miscarry shall, if the miscarriage is not caused in good faith for the purpose of saving the life of the woman, be punished with a term of imprisonment which may extend to fourteen years or with fine or both.*[10]"

While the Penal Code provides for an exception to the general provision in the event

of a need to preserve life, the provisions of the Criminal Code appear to be more stringent, imposing a complete ban admitting of no exceptions.

Having said this, the decision of the West African Court of Appeal in *R v Edgal*[11] which followed the English case of *R v Bourne*[12] firmly established that an abortion which is performed to preserve the life of a mother did not constitute a violation of the Criminal Code. Thus, in general, criminalisation of abortion in Nigeria is qualified by situations in which it becomes necessary to preserve the life of the mother.

Although relatively few cases have been brought on the grounds of abortion, cases such as *R v Idiong and Umo*[13], decided in 1950 by the West African Court of Appeal, indicating the willingness of the courts to enforce the necessary provisions of the law. The Code of Medical Ethics established by the Medical and Dental Council of Nigeria (MDCN) emphasises the criminal nature of abortion and qualifies it as an act amounting to "infamous conduct" in a professional sense[14]. Doctors are prohibited from carrying out procedures intended to lead to abortion (unless within the provision of the law) but are required in each case to provide post-abortion care to individuals who have already undergone such procedures.

Roe v Wade, etc.

Several countries like the United States, Canada, United Kingdom and more recently in the Republic of Ireland have adopted a more liberal approach to abortion law over the last few decades. The journey, navigated over time through difficult legislative processes and political manoeuvres, has often involved repeated use of referenda, case law and Supreme Court judgements. The case of *Roe v Wade*[15], decided by the US Supreme Court in 1973, ruled that a restriction on abortion was, in fact, a restriction on privacy (hitherto protected by the 14th Amendment) and affirmed a woman's right to abortion during the entirety of her pregnancy.

In recent years, some African countries have adopted a similar approach to the question of abortion law. South Africa legalised the practice of abortion through its Choice on Termination of Pregnancy Act, 1996. Ghana, a country which shares a similar colonial history with Nigeria, has modified its abortion laws, expanding its exceptions to include cases in which pregnancy has resulted from rape, incest or defilement of a person deemed (from infancy) to be deficient in mental capacity and therefore incapable of managing their own affairs[16].

The pro-life argument regards the foetus as separate, though connected to the life of the mother, and therefore deserving of the legal protection guaranteed by law

In 2013, an anti-domestic violence law (initially enacted in the Imo State, Nigeria in 2012) containing provisions allowing abortion in similar circumstances was repealed by the Governor amidst strong protest[17]. An earlier attempt (in 1982) to make Nigeria's abortion laws less stringent was also rejected, with very few public supporters of a bill presented by the Society of Obstetricians and Gynaecologists, which sought to make abortion legal in specific circumstances[18].

Anti-abortion law – *to be or not to be*

Should the law continue to insist on a restrictive approach to the question of abortion in Nigeria despite its well-documented high rate of abortion and associated levels of maternal morbidity and mortality? The same argument has been applied to good effect by pro-choice campaigners in several jurisdictions around the world.

The practice of abortion, it may be argued, is generally safe when performed by qualified health care providers with the appropriate skills, equipment and standards. Indeed, related mortality rates in countries where women have access to safe abortion services are considerably low. Proponents of the decriminalisation argument have long argued that since the law has proven ineffective in preventing the thousands of abortions conducted in unsafe clandestine establishments, perhaps the time has come to consider an alternative course of action by legalising (and regulating) the performance of abortion practices across Nigeria.

The argument further rests on the primacy of autonomy due to the woman in question, enshrined in their legal right to privacy under the Constitution of the Federal Republic of Nigeria, 1999 (section 37). It is contended that a woman, as an autonomous person, has a right to determine what she does or desires to be done with her body and that denial of the right to abortion amounts to an emasculation of that right. Emphasis is thus placed not only upon the physical and psychological demands of a state of pregnancy but also on the sacrificial requirements of motherhood and the need to ensure that such responsibilities, desirable as they might be in certain circumstances, ought not to be imposed upon the individual against their will[19].

Pro-life campaigners challenge the autonomy argument on the grounds of the need to protect living beings, including fetuses. The main argument in this regard is that, regardless of how the life has come to be, it is to be regarded as separate though connected to the life of the mother and therefore deserving of the legal protection guaranteed by law.

Autonomy, identity and 'personhood'

Anti-abortion activists argue that biologically, there is no contention as to the distinctive identity of the fetus. While the sperm and the egg released by a man and a woman respectively bear their genetic identity, a fusion of both sex cells produces a genetically distinct entity which in a strictly biological sense is neither a part of the man nor the woman.

Clearly, the fetus relies upon the resources of the mother for nourishment and immediate survival. However, it is not to be considered an extension of her body as its genetic composition is regarded as different from the mother's. The implication of this argument is that of a whole person – a new and vulnerable life, with a distinctive identity and deserving of life and protection.

Section 307 of the Nigerian Criminal Code provides that a child becomes *"a person capable of being killed when it has completely proceeded in a living state from the body of its*

mother, whether it has breathed or not, and whether it has an independent circulation or not, and whether the navel-string is severed or not". However, provisions of any statute must not be read in isolation. Section 309 of the Criminal Code is also worthy of note. It provides that *"when a child dies in consequence of an act done or omitted to be done by any person before or during its birth, the person who did or omitted to do such an act is deemed to have killed the child".*

Reading the latter provision in conjunction with the former, it may be deduced that since the law prohibits the killing of a child before its birth, at which point it cannot be said to have *"completely proceeded in a living state from the body of its mother"*, the law (albeit circuitously), ultimately recognises the personhood of the unborn fetus.

Contradiction and a question of 'degrees'

The considerations outlined in earlier paragraphs, however, do appear to raise a point of contradiction in the interpretation of the law – in recognising the personhood of a fetus, why does its punishment of abortion practices, which according to existing criminal law ranges from three to fourteen years, differ from the capital sentence passed in more conventional cases of murder? Furthermore, does the substantial difference in punishment suggest a distinction in the "degrees" of personhood (or severity of "offence") or does the law in fact (perhaps unwittingly), betray a certain double standard in its unbending position on the matter of abortion?

Apart from the legal arguments that prevail in the discussion for and against the right to abortion, there are essential sociocultural considerations of note in a religious (and socially conservative) society such as Nigeria. These include that children are a divine gift, that children are a blessing and that life is sacred; that all life begins at conception, that miscarriages are a tragic occurrence and that abortion constitutes the termination of life by an individual with no moral or ethical right to assume such privilege.

While this may seem somewhat hypocritical given the significant rates of unsafe (including fatal) abortion practices occurring around the country, these beliefs represent the valid consensus viewpoint of vast sections of Nigerian society. A common rationalisation in the minds of many is the firm and honest belief

EUROPE'S ABORTION RULES

COUNTRY	AVAILABILTY	GESTATIONAL LIMIT
AUSTRIA	On request	First three months - in practice often before 12 weeks
BELGIUM	On request	12 weeks
BULGARIA	On request	12 weeks
CYPRUS	Under certain conditions	28 weeks
CZECH REPUBLIC	On request	12 weeks
DENMARK	On request	12 weeks
FAROE ISLANDS	Under certain conditions	16 weeks
ESTONIA	On request	12 weeks
FINLAND	Under certain conditions	24 weeks
FRANCE	On request	12 weeks
GERMANY	On request	12 weeks
GREECE	On request	12 weeks
HUNGARY	On request	12 weeks
IRELAND	Strict conditions	No set limit
ITALY	On request	12 weeks
LATVIA	On request	12 weeks
LITHUANIA	On request	12 weeks
LUXEMBOURG	Under certain conditions	12 weeks
MALTA	None	N/A
THE NETHERLANDS	On request	13 weeks
POLAND	Under certain conditions	12 weeks
PORTUGAL	Under certain conditions	16 weeks
ROMANIA	On request	14 weeks
SLOVAKIA	On request	12 weeks
SLOVENIA	On request	10 weeks
SPAIN	Under certain conditions	22 weeks
SWEDEN	On request	18 weeks
UNITED KINGDOM	Under certain conditions	24 weeks

http://news.bbc.co.uk/1/hi/world/europe/6235557.stm#finland

Repeal of the 8th amendment

The Republic of Ireland has one of the strictest abortion laws in Europe. The practice of abortion is illegal in Ireland under the Offences Against the Person Act of 1861. On the 7th of September 1983, a referendum was passed (by a vote of 66.9% to 33.1%) adding an eighth amendment to the constitution of the Irish Republic, granting an "equal right to life" on behalf of the unborn child and effectively ruling out the prospect of abortion in all but the most stringent circumstances.

The case of a 14-year-old girl (Attorney General v. X) who became pregnant and subsequently suicidal following an incident of rape, reignited the abortion controversy in 1992 and resulted in a Supreme Court ruling in favour of her right to an abortion.

Subsequent attempts (in 1992 and 2002) to exclude suicide as reasonable grounds for abortion were defeated. However, the law was progressively relaxed, first in 1992 to allow women to travel abroad for termination if they so desired, and again in 2013 with the Protection of Life During Pregnancy Act allowing for specific additional provisions relating to loss of life from emergency physical and mental ill health.

On the 25th of May 2018, Irish citizens voted in a landslide referendum (66.4% to 33.6%) to repeal the eighth amendment, paving the way for significant legislative change to Ireland's longstanding history of restrictive abortion laws.

that decriminalising the subject of abortion amounts effectively to an act legitimising its practice. The strength of opposition to more recent efforts to enact pro-abortion laws reflects the attitude of society to the question of where the law should stand in relation to abortion practices.

Addressing root causes

Regardless of the position one might adopt on the present status of the law on abortion, it is the view of many that several important issues on the subject have so far been neglected. The first of these, of course, must be the question – *"Why do we have such high rates of abortion in the first place?"* This question is perhaps readily answered as follows, *"…because Nigeria has a high rate of unwanted pregnancies".* The second question follows naturally from the first – *"Why do we have a high rate of unwanted pregnancies*?" The third question – *"What can we do to limit the high rate of unwanted pregnancies?"*

The high rate of unwanted pregnancies, and consequently the rising number of abortions recorded in Nigeria, are almost inextricably linked with a low-level uptake of (or access to) contraception services. Population studies have shown that only 16% of women of reproductive age were using any form of contraception in 2013 and only 11% of this (16%) cohort was using a modern method of contraception[20].

This fact also provides considerable insight into some of the critical reasons for significant abortion rates amongst married and unmarried women. Oye-Adeniran et al. (1987) list issues of a short birth interval, the high cost of raising children, interruption of education and unmarried status as the most common reasons for unwanted pregnancies.[21,22] The study demonstrated a persistent disparity between knowledge and (actual) use of contraception and highlights significantly low rates of contraception-use (23.4%) among women with a history of unwanted pregnancies. It concludes that increased usage will reduce the risk of unwanted pregnancy and subsequent induced abortion.

Recommendations

The law in Nigeria does not currently make provision for abortion except in the (restricted) event that it is necessary to save the life of the mother. The current sociocultural context in Nigeria does not support a change to the law on abortion at this stage. A pragmatic approach must, therefore, be sought to address identified causes as follows:

1. Improve public awareness and uptake of contraceptive services among women of childbearing age – The law can contribute towards this by including the provision of contraceptive procedures and devices in the basic minimum package of health care services to which a Nigerian is entitled under Section 3 of the National Health Act. The corresponding provision should also be made within state-level health insurance programmes.
2. The Child Rights Act should ideally be amended to include a requirement for sex education in all (public and private) schools – This should form part of a sustained public health campaign to reduce stigmatisation of unmarried mothers and provide better support structures for adoption services nationwide[23].
3. Provision of counselling and support centres where women (and girls) can receive support from trained personnel in a non-judgemental manner – this includes pregnancy crisis centres and sexual assault referral centres with facilities to provide contraception and pre-exposure prophylaxis for HIV. At present, very little policy or legal support exists for such centres.

In conclusion

Abortion law in Nigeria is likely to remain controversial in the years ahead. However, both pro-choice and anti-abortion proponents can make significant efforts to reduce the incidence of (safe and unsafe) abortion in Nigeria. If it remains expedient to maintain the existing stance on abortion as set out in the criminal law, then provision should be made to encourage an environment conducive for its reduction across the country.

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Acknowledgment – *Many thanks to Chioma Dibia, (intern) and Amarachi Okonkoh (Associate) of Health Ethics and Law Consulting, for their research assistance towards this article.*

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WHERE DOES THE COURSE FIT IN?

The 'Abdo Pain ?Cause' Masterclass is designed to familiarise practitioners from a variety of clinical backgrounds with the tools and necessary competencies to facilitate early identification, investigation and treatment of clinical conditions presenting with abdominal pain and associated symptoms. The programme explores the varied differential diagnoses of this extremely common group of symptoms and offers GPs and hospital-based practitioners an evidence-based framework for appraisal and management of abdominal pain, weight loss and gastrointestinal symptoms.

CONFERENCE OBJECTIVES

By the end of this programme, delegates will be expected to have:

1. Developed a working knowledge of important differential diagnoses, investigations and treatment options relevant to the management of abdominal pain (and related) symptoms.
2. Explored a range of typical and atypical presentations of abdominal pain and related symptoms, including variations in presentation and areas of overlap across different specialities.
3. Become familiar with an appropriate line of questioning (and interaction) required to arrive at reasonable diagnostic possibilities in the course of the clinical consultation.
4. Acquired an understanding of specific diagnostic and treatment options relevant to the management of identified major causes of abdominal pain and related symptoms.

LECTURE SCHEDULE

DAY ONE — Tuesday 24th July 2018

SESSIONS & KEYNOTES

08:00 – 09:15	**Registration**
09:15 – 09:30	**Welcome & Introduction**
09:30 – 10:30	**Abdominal Pain ?Cause –** Typical presentations of abdominal pain in general practice **Dr Adetokunbo Shitta-Bey** MBBS, MSc, MBA, MRCGP - Family Physician & Course Convenor, BeyHealth Masterclass Lectures **Mimicking abdominal symptoms -** Heartburn! Acid Reflux, Cardiac Dysrhythmias or Ischaemic Heart Disease **Dr Eugene Nwosu** MBBS, FACC, FACP, FAHA - Consultant Cardiologist, United Heart Hospital, Lagos
10:30 – 11:00	**Coffee Break**
11:00 – 12:30	**Unusual (endocrine) presentations of abdominal pain symptoms -** Focus on Diabetic Ketoacidosis **Dr Olufemi Fasanmade** MBBS, FWACP, FACE, FNSEM - Associate Professor / Consultant Physician & Endocrinologist, College of Medicine, University of Lagos (CMUL), Nigeria
12:30 – 13:30	**Lunch Break**
13:30 – 14:30	**'Mum, my tummy hurts!' –** Paediatric presentations of abdominal pain **Dr Cecilia Mabogunje** MBBS, MSc, MRCP, MRCPCH - Consultant Paediatrician, Massey Street Children's Hospital, Lagos
14:30 – 15:30	**Emergency Medicine & the 'Acute ("Surgical") Abdomen'** **Dr Seun Sowemimo** MD, FACS, FASMBS - Consultant General/Laparoscopic & Bariatric surgeon, Prime Surgicare/Central Jersey Bariatrics, New Jersey, US
15:30 – 16:00	**Q&A**

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ABDO PAIN ?CAUSE

Symptoms | Diagnoses | Management

DAY TWO — Wednesday 25th July 2018

SESSIONS & KEYNOTES

08:00 – 09:15	**Registration**
09:15 – 10:30	**Major causes of abdominal pain in children** **Dr Cecilia Mabogunje** - MBBS, MSc, MRCP, MRCPCH Consultant Paediatrician, Massey Street Children's Hospital, Lagos
10:30 – 11:00	Coffee Break
11:00 – 12:00	**Intestinal obstruction -** Causes, investigation, treatment **Dr Seun Sowemimo MD, FACS, FASMBS** - Consultant General/Laparoscopic & Bariatric surgeon, Prime Surgicare/Central Jersey Bariatrics, New Jersey, US
12:00 – 13:00	Lunch Break
13:00 – 14:30	**Abdomino-pelvic symptoms of Gynaecological origin -** Overview of pelvic and ovarian lesions **Dr Olajuwon Alabi** MBBS, MRCOG Consultant Obstetrician & Gynaecologist, South Shore Women and Children's Hospital, Lagos, Nigeria
14:30 – 16:00	**'...Or is it Surgical? -** 'Medical' interpretations of abdominal symptoms (the physician's dilemma) **Dr Ebun Bamgboye** MBBS, MD, FWACP, FRCP Consultant Physician/Nephrologist, St. Nicholas Hospital, Lagos, Nigeria
16:00 – 16:20	Q&A / Thanks & Acknowledgements
16:20	End of Programme

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ABC of Common Conditions 2
Angina

What is 'angina'?

Angina is a heart condition that happens when the blood supply to the muscles of the heart is restricted. It usually occurs when the arteries that feed the muscles of the heart become hardened and narrowed.

How can I tell the difference between angina and a heart attack?

The main symptom of angina is a dull, heavy or tight pain in the chest that can sometimes spread to the left arm, neck, jaw or back. Unlike a heart attack (which is caused by more permanent blockage to the arteries and subsequent damage of heart muscle), the pain of an 'angina attack' is usually triggered by physical activity or stress and usually only lasts for a few minutes. The pain of a heart attack will usually last for about half an hour.

Types of angina

There are two main types of angina. These are *'stable angina'* and *'unstable angina'*.

Stable angina

If your angina develops gradually and appears related to physical activity (such as climbing stairs) or stress, you are likely to have stable angina. Stable angina will usually last only a few minutes and can often be improved by taking fast-acting medication called glyceryl trinitrate (or GTN). GTN is usually sprayed underneath the tongue and works by opening up the arteries that feed the heart. Stable angina is not immediately life-threatening, BUT, it is a serious warning sign that you are at risk of developing a more serious heart condition such as a heart attack or stroke.

Unstable angina

Your angina is 'unstable' if your chest pain develops rapidly, occurs even without physical activity (for example, while sitting or resting) and can last for up to 30 minutes. Unlike stable angina, this kind of angina may NOT respond to treatment with GTN spray. In some cases, stable angina may worsen, and progress to unstable angina. In many people however, unstable angina may occur without any previous warning signs. Unstable angina is a medical emergency because it is a definite sign that the function of your heart has deteriorated very rapidly, and that your chances of having a heart attack or stroke have been greatly increased. Unstable angina can be treated both with medication and with surgery.

What causes angina?

Most cases of angina are caused by atherosclerosis, a condition in which the arteries that feed the heart become hardened and narrowed due to a build-up of fatty substances that are known as plaques. This reduces the blood supply to the muscle of the heart and triggers the symptoms of angina. You are more likely to develop atherosclerosis if you are a male over the age of 50, a smoker, obese or eat a high-fat diet. You are also more likely to develop angina if you already have a history of heart disease, suffer with high blood pressure (or hypertension) or type 2 diabetes.

Treatment of angina

There are 3 main reasons why you MUST treat your angina:

1. to relieve immediate symptoms of chest pain during an angina attack
2. to reduce the number of angina attacks that you suffer in future
3. to prevent the restricted blood supply to the heart becoming more severe and causing a heart attack

Angina can be treated by using medicines, or surgery if the symptoms do not respond to drug treatment.
The 2 main type of surgery used to treat angina are:

- A graft – where a blood vessel (usually a vein) is taken from another part of the body (usually the leg) and used to bypass the flow of blood past a blocked or narrow section of artery
- Angioplasty – where a narrowed section of artery is widened using a tiny tube called a stent

Complications of angina

If you already suffer with angina, it is possible that the damage to the arteries feeding your heart will continue to get worse.
This can result in blockage of these arteries and permanent damage to the muscle of the heart (a "heart attack").

Next ABC - Cholesterol...
October issue of the BHQ Journal.

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A Point of View
In Pursuit of the 'Holy Grail'

How health insurance can help fund Universal Health Coverage in Nigeria

Leke Oshunniyi

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> It took Germany 100 years from Otto von Bismarck's 1883 Health Insurance Bill, to achieve UHC.

I heard a collective gasp of disapproval from my audience and looked up to see a dozen pairs of eyes staring at me with disapproval and perhaps a little hostility. I was in the middle of a corporate presentation to a group of accountants from a reputable firm, and I had just made a seemingly blasphemous statement. I had declared *"The preference of the health insurer is that there should be no claims whatsoever! However, since this is practically impossible, the fewer the claims, the better for the insurance company and the insured, provided premiums have been fairly computed."*

My audience seemed to think that health insurance policies must be utilised by all subscribers simultaneously! I was compelled to launch into a lengthy explanation.

Definition

Insurance is definable as a system of compensation, which in return for regular payments of sums money, ensures full or partial financial reimbursement for the loss or damage caused by contingent events beyond the control of the insured party. In health insurance terms, the damage or loss refers to ill-health.

Health risk

Underlying this relatively simple concept is a determination of the likelihood or "risk" of illness occurring in an individual residing in a given community within a specified period. The mathematics-based profession of actuarial science has evolved out of the need to calculate insurance risk. The intricacy of actuarial science can best be imagined by considering that the outgoing ICD 10 catalogues for about 70,000 codes for different ailments that afflict humanity, each with a different incidence *(box 1)*.

Modus operandi

The regularly paid sums of money referred to above, also known as premiums, are determined by an exhaustive series of actuarial computations. In the private sector, health insurance companies (Health Maintenance (or Management) Organisations) also known as HMOs arrange for the delivery by providers (hospitals, laboratories, pharmacies and others) of designated health benefits to premium-paying enrollees by way of various health plans. The benefits packages differ according to premium size and embedded options.

Risk sharing

The basis of the business model of health insurance companies is the actuarially supported assumption that not every subscriber will fall ill simultaneously. In effect, at any given time, the risk is being shared, and the healthy subscribers are paying for the members who are unwell. The HMO is thus able to pay the medical bills or claims for the ailing, from the pool of funds accumulated from hundreds, thousands or even millions of premiums. In certain circumstances, excessive claims may deplete the fund pool so severely, that the quantity of claims exceeds total premiums and the health insurance company sustains an operational loss which may be severe enough to bankrupt the company and create business for accountants (and possibly even lawyers)!

At this point in the discussion, my audience of accountants heaved a collective sigh of relief and leaned back in their chairs with smiles on their faces!

Risk mitigation

Operational losses may be due to actuarial miscalculation, inefficiency, fraudulent bills, over-billing, excessively high

ICD-10 - The International Statistical Classification of Diseases and Related Health Problems, Tenth Revision is a system, published by the World Health Organization (WHO) and used by physicians and other healthcare providers to classify and code all diagnoses, signs and symptoms, abnormal findings, complaints, social circumstances, and external causes of injury or diseases of relevance to patient care.
http://www.who.int/classifications/icd/en/

Box 1: International Statistical Classification of Diseases & Related Health Problems, (ICD-10)

The Patient Protection and Affordable Care Act, also known as the Affordable Care Act (ACA) is a United States federal statute enacted by the 111th United States Congress and signed into law by President Barack Obama in 2010. The Act is intended to ensure that all Americans have access to affordable health insurance and aims eventually to slow the growth of US healthcare spending, at present the highest in the world. It prevents insurance companies from denying health coverage to people with pre-existing health conditions allows young people to remain on their parents' insurance plans until the age of 26 and expands eligibility for the government-run Medicaid health programme for individuals on a low income.[1]

Box 2: Patient Protection and Affordable Care Act, 2010 (Obamacare)

tariffs, over-diagnoses, over-investigation, excessive/unnecessary use of services (over-utilisation) and natural disasters or Acts of God. Apart from the final category of possible reasons for health insurance business failure, the other causes may be mitigated by administrative adjustments, ultra-efficient ICT platforms, provider and subscriber education and in the more extreme circumstances, through prosecution if necessary.

"The journey of a thousand miles begins with a single step"

Lao Tsu

Although only partially deployed under the public health insurance programme in Nigeria, in more mature health insurance environments in other parts of the world, the most effective disincentives to an excessive claims regime are the financial restraints of co-payments and deductibles.

A co-payment is a fixed contractual payment made by an enrollee to a health insurance company, of a relatively small sum or percentage of the anticipated cost of services before accessing care. Deductibles are either the payments made by members of a proportion of total claims (excess) or monetary thresholds below which enrollees must pay for the cost of care. These two strategies have the effect of dramatically reducing the evil of over-utilisation by way of frivolous visits to the hospital.

Exclusions

Readers who are conversant with the model of healthcare delivery in the United States will remember the controversy generated during the implementation of "Obamacare" (Patient Protection and Affordable Care Act[1]), concerning illnesses not routinely included in existing health insurance plans *(box 2)*. [2, 3] Conditions ineligible for coverage by health insurers are those which contravene "the law of insurance". These conditions, typified by loss or damage caused by (contingent) events beyond the control of the insured party, are known as exclusions. These exclusions may differ from plan to plan and from one insurer to another. In general, health insurance plans will usually exclude the following:

- Pre-existing medical conditions
- Injuries resulting from self-harm
- Alternative (or unconventional therapies)
- Various forms of cosmetic surgery
- Drug and alcohol abuse (including rehabilitation)
- Obesity treatment and specific weight loss-related programmes
- Specific congenital illnesses
- Dietary and mineral supplements

Types of health insurance

There are two main types of health insurance.

1. Private Health Insurance (PHI)
2. Social Health Insurance (Government-operated / subsidised health insurance)

Private health insurance

Two varieties are practiced in Nigeria:

Managed care plans

In this model, HMOs enter into contracts with a network of providers, to deliver services at agreed tariffs expected to be much lower than amounts charged to walk-in patients. In return, HMOs guarantee providers a high volume of enrollees. Healthcare delivery is categorised into primary, secondary or tertiary care depending on the severity of the ailment, a necessity for hospital admission, the likelihood of surgery or the need for complex investigations. For treatment of primary care conditions without recourse to the HMO, providers are paid a fixed sum per enrollee, known as a capitation fee. In this way, the HMO transfers the risk of primary ill health to the providers. Providers, however, charge HMOs for secondary and tertiary healthcare on a case by case or fee-for-service basis.

Indemnity or fee-for-service (FFS) plans

These plans may also sign contracts with providers but may allow enrollees to roam or use any hospital within the network. Capitation fees are not paid, and care is given by providers solely on a fee-for-service basis. All bills undergo thorough vetting before payment.

Social Health Insurance (SHI)

Social Health Insurance shares many similarities with its private insurance counterpart, namely the pooling and sharing of funds and risk, actuarial computation of economic premiums and healthcare tariffs and remuneration of providers. However, there are noteworthy differences, the most significant of which is that SHI systems are not-for-profit! Also, even though premiums are paid according to ability and personal circumstance, SHI plans are uniform, with no disparity in benefit packages.

In effect, the more affluent subscribers to this type of health insurance programme effectively subsidise healthcare on behalf of the

less privileged, a system known as cross-subsidisation. Furthermore, many conditions, ordinarily excluded under the terms of a private health insurance scheme, such as pre-existing conditions, drug and alcohol abuse and congenital diseases are accommodated by SHI schemes.

In countries such as the United Kingdom, where successful SHI programmes have been sustained for an appreciable length of time, the government has invested considerable effort in mobilising population-wide contribution from millions of citizens in order to ensure economies of scale. Where governments have been unwilling or unable to charge special "health taxes", laws have been passed to make SHI contributions compulsory for as many categories of employed residents as possible.

Workers in the informal sector might be charged a flat rate to access healthcare through the SHI system. Premiums are usually paid into a single "fund". Government subsidies in SHI schemes stabilise the system and assist vulnerable groups such as the indigent, prisoners and long-term disabled individuals who would otherwise be unable to afford care.

Even in the ultra-capitalist USA, Medicaid and Medicare provide a level of subsidised health care for individuals on low income and also for the elderly.

Planning the 33-Fold Leap from 3% to UHC

Currently, in Nigeria, about 2 million public servants and dependants are enrolled in the Formal Sector Social Health Insurance Programme (FSSHIP) of the National Health Insurance Scheme (NHIS). In addition to (approximately), one million enrollees on PHI and perhaps 2 million on various other plans such as the Tertiary Institution Social Health Insurance Scheme (TSHIP), a total of about 5 million people are enrolled nationwide.

The World Bank estimates the Nigerian working population in 2017 to be in the region of 60 million individuals, most of whom are subsistence farmers and artisans earning less than US$ 1 per day.

However, with 10 million confirmed taxpayers/breadwinners, and an assumed average family size of 6, the Nigerian UHC project can take-off with sixty (60) million beneficiaries. [4, 5]

We envisage that PHI and SHI will continue to run concurrently in Nigeria.

Next Steps

The following are essential steps towards achieving Universal Health Coverage through health insurance in Nigeria.

1. *Enacting appropriate legislation* – Eligible persons must be obliged by law to make contributions into the SHI pool of funds.
2. *Building consensus* – In a 2010 World Health Organization (WHO) publication, Doetinchem et al. state that *"considerable effort needs to be put into building consensus and support of all stakeholders as well as the general public if SHI is to be established successfully.*[6]*"*
3. *What would be the SHI benefit package?* – Many countries that have launched successful UHC programmes have implemented an "essential (basic) package" of benefits. Given Nigeria's current economic situation, experts have proposed a basic package of primary care to include maternity and under-5 care.
4. *Which health care providers?* – A mix of public and private healthcare providers is recommended for the basic package of social health insurance. Secondary and tertiary care can be provided by eponymous centres for PHI and SHI.
5. *What payment mechanisms?* – Fee-for-service plans are challenging to administer and are associated with rapidly escalating healthcare costs. The capitation model is recommended for primary care.
6. Government subsidies – to take the form of statutory votes for primary care and budgeted sums at all tiers of Nigerian Government.

"The journey of a thousand miles begins with a single step," said Lao Tzu the ancient Chinese sage. It took Germany over 100 years from Otto von Bismarck's 1883 Health Insurance Bill, to achieve universal health coverage. It may yet take decades for Nigeria to reach this ideal. Nonetheless, it is imperative that the journey should begin.

> "It may take decades for Nigeria to reach this ideal, but it is imperative that the journey should begin.

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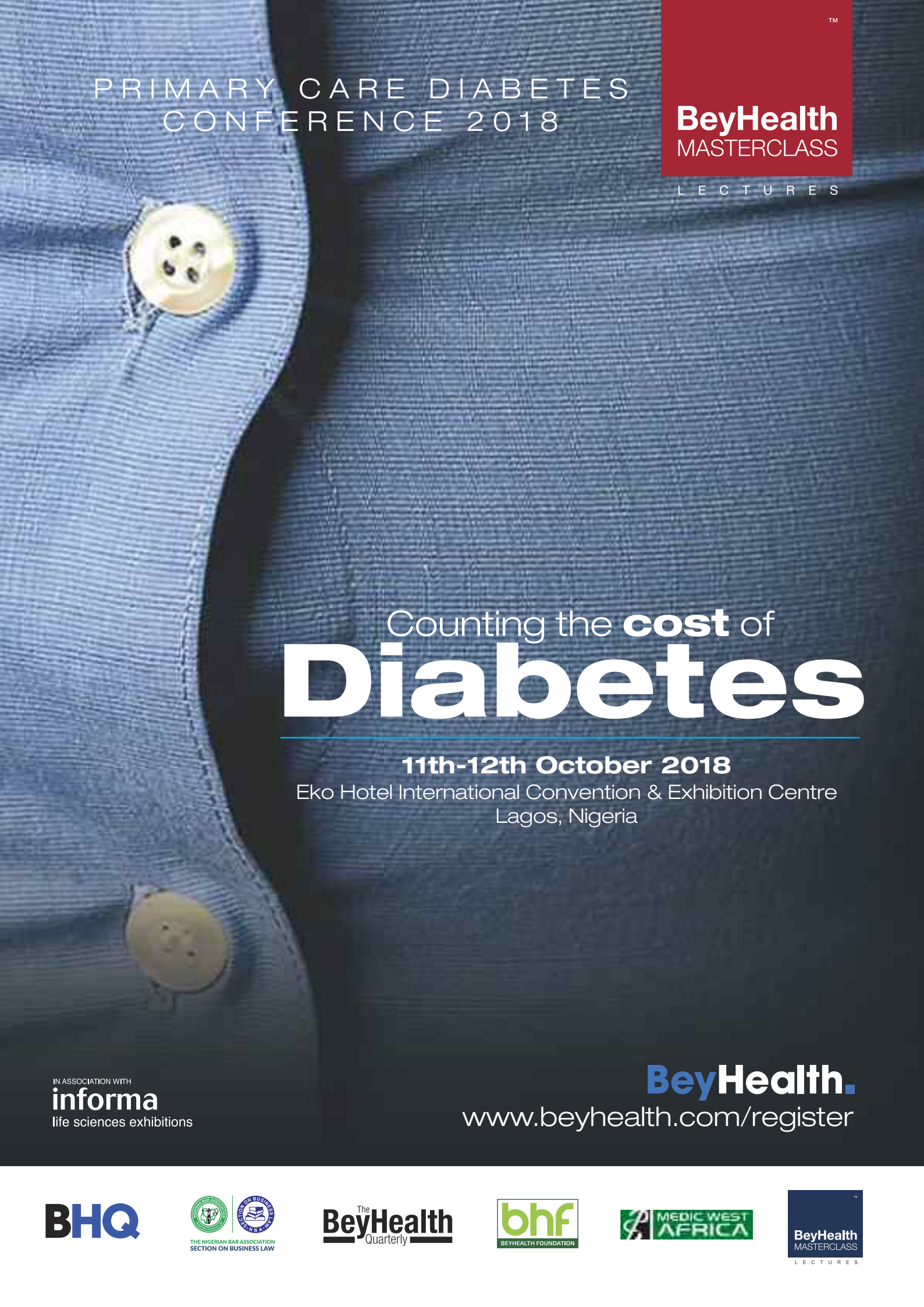

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Clinical Update
Colorectal Cancer Overview

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Introduction

Colorectal cancer is a major health problem worldwide with over 750,000 new cases per annum and nearly 300,000 deaths. In the United Kingdom, there are about 34,000 new cases per annum and 16,000 deaths equating to 50 people dying every day from the disease.

The overall 5-year survival in the U.K, France and Germany is 45%, 50% and 60% respectively, correlating with earlier presentation of the disease in Germany. Furthermore, France and Germany have long-standing screening programmes for bowel cancer, unlike in the UK, which began its national bowel cancer screening programme just over 10 years ago.

In Nigeria, the data is at best muddied and at worst, may be regarded as non-existent. However, published sporadic data indicate that the peak age of incidence of colorectal cancer is a mere 44 years compared to 67 years in Western Europe!

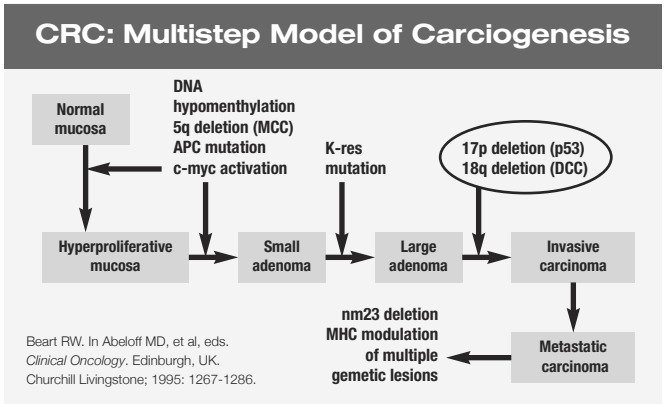

Fig 1: Adenoma-carcinoma sequence Diagnosis

Nigerian patients are not only young but tend to have very aggressive disease characterised by bad prognostic histological features like poorly differentiated, spindle or mucin-producing cancer cells. Perhaps even more disheartening is the fact that more than 75% of patients in Nigeria present with advanced disease (stages 3 & 4) compared to just 30% of the screened population in Western Europe. The clinical outcome for patients in Nigeria who suffer from colorectal cancer will, therefore, remain abysmal without an urgent National strategy to tackle the disease.

Aetiology

The exact cause of colorectal cancer is unknown, but it is now widely accepted that most bowel cancers arise from benign polyps or adenomas, that have undergone various genetic mutations possibly triggered by some yet undetermined environmental factor/s. The adenoma-carcinoma sequence *(figure 1)* is a model of colorectal carcinogenesis that was first described by Bert Vogelstein comprising of a series of mutations, deletions and suppression of cancer genes at the molecular level. Generally, colorectal cancer can be divided into two distinct groups.

A. Sporadic Cancers – The vast majority (about 90%) of colorectal cancer cases are sporadic. In these cases, the exact cause is unknown. However, anecdotal evidence appears to suggest that a complex interaction of a variety of environmental factors such as reduced fibre intake, excessive ingestion of red meat, carcinogens, obesity and smoking among others, contribute to the development of this type of colorectal cancer.

B. Hereditary Cancers – These contribute about 10% of all colorectal cancers and can be sub-divided into:

I. Hereditary Non-Polyposis Colorectal Cancer (HNPCC) – 8%. In this case, mismatch repair genes within the double-stranded DNA result in microsatellite instability and loss of apoptosis (programmed cell death) leading to the emergence of malignant cells. These genes can be detected in tumour tissue samples using specialised immuno-histochemical techniques and guide the clinician in recommending a screening strategy for offsprings or siblings of patients with HNPCC.

II. Familial Adenomatous Polyposis (FAP) – 2%. These patients carry the FAP gene resulting in the formation of thousands of pre-malignant colonic polyps. Typically, these polyps are diagnosed when patients are in their teens, progressing to cancer in their early twenties and death before the age of 30. For this reason, these patients require surgery to remove the entire colon (total colectomy) once these polyps appear in an attempt to remove the risk of developing colorectal cancer.

This article was originally published in the first edition of the BeyHealth Quarterly Journal (BHQJ) on the 1st May 2018.

Diagnosis

A diagnosis of colorectal cancer is based on a good history. Weight loss, rectal bleeding (any colour, frequency or quantity), change in bowel habit, tenesmus (feeling of incomplete emptying), anaemia, abdominal pain and/or distension or palpable abdominal mass on physical examination.

Remember that a good clinical assessment includes a rectal examination (PR) and examination with a rigid or flexible sigmoidoscope and is completed by direct visualisation of the entire colon at colonoscopy (gold standard) or indirectly with barium studies (obsolete in developed countries).

One must ensure that colonoscopy is performed by a suitably qualified gastroenterologist or gastrointestinal surgeon who is trained to intubate the caecum (confirmation of a complete examination) and to recognise both normal and abnormal findings.

CT pneumocolon / virtual colonoscopy is a modern alternative where the risk of colonoscopy is unacceptably high or cannot be tolerated by the frail patient. Histological confirmation of cancer from tumour sample is required before staging investigation with a CT scan of the chest, abdomen and pelvis, MRI for rectal cancer and an endo-anal ultrasound to define early rectal cancer that may be amenable to local excision.

Treatment

Surgery

Surgery offers most people a realistic chance of disease cure – 80% of patients survive five years following curative resection (stage 1&2) and histological findings indicate that no further treatment is necessary. Surgical options for early colon cancer include a right, extended or left hemicolectomy with primary anastomosis for lesions in the right, transverse or left colon respectively *(figure 2-4)*.

A high anterior resection is performed for recto-sigmoid tumours while total mesorectal excision (TME) usually with a temporary loop ileostomy is the gold standard operation for rectal tumours. In very low rectal cancers, a sphincter-saving operation (colo-pouch anal anastomosis, *figure 5*) may be attempted provided a distal clearance margin of at least two centimetres is achieved. However, oncological clearance of a tumour should always take precedence over any attempt to save the sphincters in which case an abdominoperineal excision of the rectum with formation of a permanent colostomy must be undertaken. All excised specimens are staged histologically (Duke's and TNM classification) as the results confirm curative surgical resection or the need to recommend further adjuvant or palliative treatment.

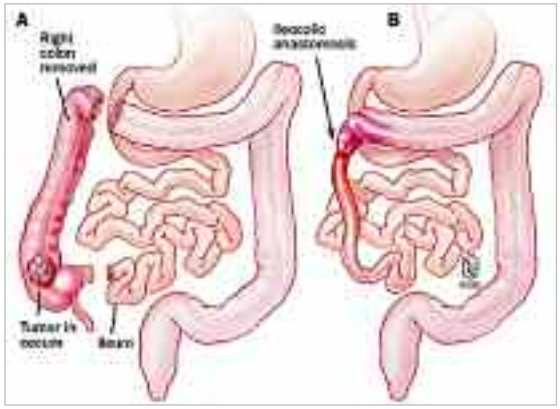

Fig 2: Right hemicolectomy and ileo-colic anastomosis for right sided lesion

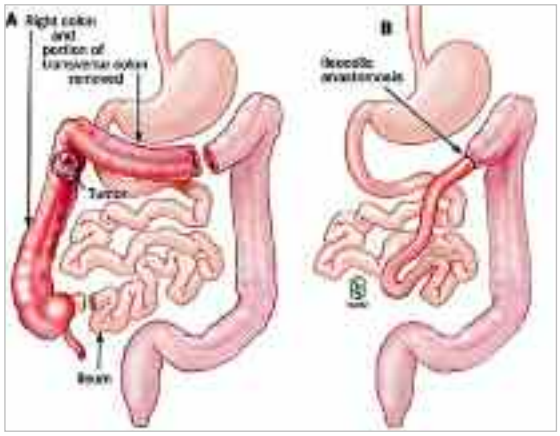

Fig 3: Extended right hemicolectomy and ileo-transverse anastomosis for transverse colon lesion

Adjuvant Treatment for Colorectal Cancer

The rationale behind adjuvant treatment for colorectal cancer is threefold;

1. Surgery alone has failed to significantly improve overall survival from the disease.
2. Micrometastasis of cancer cells is thought to be the reason for failure of surgery alone.
3. A better understanding of tumour cell cycle indicates that micrometastases are susceptible to destruction by chemotherapy agents.

Adjuvant treatment is usually in the form of chemotherapy, radiotherapy or chemo-radiotherapy.

Chemotherapy

Adjuvant chemotherapy has significant 3-5-year survival benefits in patients with node-positive disease. The main cytotoxic agents are 5-Fluorouracil with Folinic acid, Oxaliplatin and Irinotecan in various combinations administered as an infusion over 306 months. The recent addition of immunotherapy agents such as cetuximab, panitumumab or bevacizumab confers additional survival benefits in this cohort of patients.

CPD UPDATE

- There are 750,000 new cases of colorectal cancer per annum worldwide and nearly 300,000 deaths
- Peak age of incidence of colorectal cancer in Nigeria is approximately 44 years (compared to 67 years in Western Europe)
- 75% of patients in Nigeria present with advanced disease (stages 3 & 4) compared to just 30% of the screened population in Western Europe

CPD UPDATE

- The exact cause of bowel cancer is unknown but most arise from benign polyps or adenomas that have undergone genetic mutation triggered by environmental factors
- 90% of colorectal cancers are *'sporadic'* or of unknown cause.
- FAP polyps typically progress to cancer in the early twenties and cause death before age 30
- Patients with FAP require surgery to remove the whole colon once these polyps appear
- Treatment modalities for colorectal cancer include surgery, radiotherapy and chemotherapy depending on the type, site and stage of disease
- Screening for colorectal cancer prevents disease progression and improves prognosis

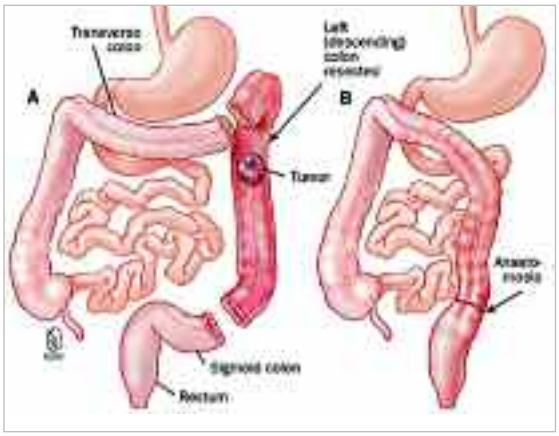

Fig 4: Left hemicolectomy and colo-rectal anastomosis for left sided lesion

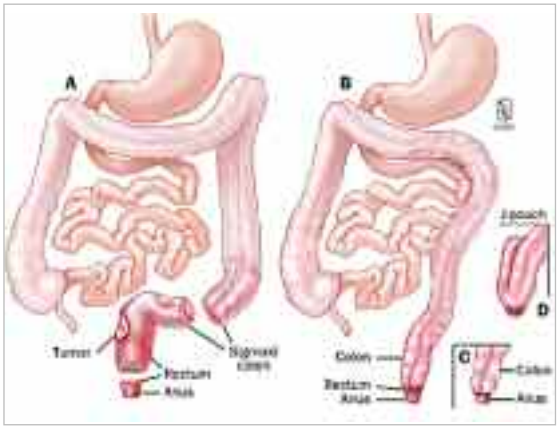

Fig 5: Sphincter saving operation for low rectal cancer with colo-pouch anal

Radiotherapy

Adjuvant radiotherapy has no benefit in colon cancer. It is given in rectal cancer to reduce the rate of local recurrence or possibly 'downstage' the disease (down-sizing to increase the chances of successful surgical clearance).

It may be given pre or post-operatively, either as a short (5 days) or long (4-6weeks) course treatment. There is good evidence from randomised trials that short-course preoperative radiotherapy for rectal cancer significantly reduces local recurrence and improves survival, but toxicity attributed to therapy has reduced its popularity. Long course pre-operative radiotherapy is advocated for patients with locally advanced rectal cancers for the purpose of 'downstaging' the disease.

Long course post-operative radiotherapy where there are bad prognostic indicators for local recurrence (lymphovascular invasion, poorly differentiated tumours and positive circumferential margins) following curative resection with the proviso that patient did NOT receive pre-operative radiotherapy.

Chemoradiotherapy

Combination therapy in the form of chemo-radiation is based on the concept that cytotoxic agents sensitise tumour cells to downstaging by radiation. This form of neo-adjuvant therapy (given pre-operatively) is expected to increase in popularity particularly with the development of newer more effective chemotherapy agents.

Liver Resection

Hepatectomy for colorectal liver metastasis is associated with a five-year survival of about 30%. Generally, less than four metastases confined to one lobe of the liver may be amenable to surgical resection, but this indication has been extended in the hands of experienced liver surgeons. However, the timing of surgery remains controversial, whether hepatectomy should be synchronous with resection of the bowel primary or, perhaps delayed for three months prior to re-staging of the disease. In Europe, most surgeons favour a delayed approach, as this permits selection of patients with rapidly progressive disease who are unlikely to benefit from surgery.

Radiofrequency Ablation (RFA)

Radiofrequency energy has emerged as a useful modality to ablate in-situ liver metastases where the lesions are considered irresectable or in selected cases, in combination with liver resection. This form of treatment is administered percutaneously under general anaesthesia and radiological control by expert radiologists in highly specialised units. Current evidence indicates that RFA alone does not provide survival benefit comparable to liver resection.

Palliative Care

Patients with disseminated colorectal cancer, irresectable primary tumours unresponsive to chemoradiation are referred to the palliative care team. Symptom relief with a variety of drugs is the primary goal of palliation. Infrequently, surgery is indicated in the form of a debulking or bypass procedure.

Screening

Screening for colorectal cancer offers the opportunity to prevent the disease developing or to improve prognosis by treating the premalignant (polyps) and early stage disease. There is good evidence from randomised trials that screening for colorectal cancer with faecal occult blood testing saves lives and amounts to a 15-18% reduction in cumulative mortality.

Furthermore, 43% survival benefit was shown in the screened population of a randomised trial using flexible sigmoidoscopy. However, colonoscopy remains the gold standard and should be undertaken by qualified gastroenterologist / gastrointestinal surgeon trained to complete the examination (caecal intubation with photographic evidence) and to recognise normal from abnormal findings. An incomplete examination is potentially catastrophic for the patient, so it is important to interrogate the operator regarding their experience, how many procedures they have performed previously and their complication rates. It is not customary in Nigeria to question a so-called "expert".

However, in view of the high stakes involved, I would advise that the clinician that calmly (and satisfactorily) addresses your concerns without resorting to irritation, anger or self-justification ought indeed to be the doctor of choice.

INSIGHT

Tackling Codeine Addiction

Taiwo Dairo

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Codeine (3-methylmorphine) is an alkaloid morphine derivative found in opium. An alkaloid is a group of naturally occurring compounds consisting mostly of nitrogen atoms. Codeine is an opiate medication in the same class as other narcotic agents such as morphine and diamorphine (heroin).

It has weaker analgesic and sedative properties than morphine (its parent compound) and is commercially available as an antitussive (cough medicine) and pain-killing remedy in single preparations, and in combination with other agents.

Pharmacokinetics

Codeine is metabolised to morphine in the body by the cytochrome P450 enzyme (CYP) 2D6. As a narcotic medication, the mechanism of action of codeine is similar to other opioid drugs. It binds to specific (opioid receptor) sites in the brain with specialised receptors for endogenous (naturally occurring) neurotransmitters such as endorphin and dopamine. Codeine interacts with these receptors to block pain signals, suppress cough impulse and act similarly to these endogenous neurotransmitters to achieve analgesia, reduce the sensation of fatigue and produce feelings of euphoria, relaxation and overall well-being.

Codeine is generally not addictive when used (intermittently) as a cough suppressant and for short-term relief of moderate to severe pain. More prolonged use of larger quantities may, however, induce significant physical and psychological dependence on the drug.

The pleasure-inducing effect of opioid drug-use contributes significantly to the potential of these substances to lead to dependence in the longer term. Codeine has become an extremely popular recreational drug among the youth in developing countries such as Nigeria. This article discusses a range of policy instruments useful for tackling the problem of codeine addiction and opiate misuse in Nigeria.

A conspiracy of ignorance

Abusers of codeine and similar opioid substances tend very often to offer justification for their ostensibly "harmless" indulgence on the grounds of symptom-relief, a desire to gain more energy and to "feel good" about themselves.

These justifications are reflected in a variety of articles written on the subject and shared across a wide range of demographic distinctions, for example, students and adult professionals using codeine as a stimulant for "boosting" energy levels, and individuals taking advantage of its aphrodisiac properties! They conveniently ignore the addictive and anti-social consequences of drug misuse and focus erroneously on the illusory benefit supposedly derived from the illegal consumption of codeine and similar substances.

Education and public awareness

A concerted drive towards public education and population awareness if successful would serve to dispel any misconceptions about the use of codeine. Community stakeholders, private organisations, schools and places of public worship (churches, mosques and others) must be furnished with accurate information about the dangers of codeine dependence and thoroughly supported in the dissemination of this information throughout the community.

Healthcare professionals must actively engage with the community in the propagation of these public awareness messages and seek to improve their knowledge for the benefit of patients and the public.

Re-classification

Doctors Without Borders/Médecins Sans Frontières (MSF) maintain the argument that access to "essential medicines" such as painkillers should not be regarded as a luxury, especially in developing countries.

However, the scale of the problem that exists in Nigeria suggests an urgent need to achieve regulatory control and restricted access to codeine on the open market. The purpose of such restriction must not be to instigate a ban on the use of codeine as such extreme measures would serve only to drive an already dangerous trend further underground!

A system of drug re-classification has been applied to good effect in other countries where the clinical and socioeconomic impact of substance misuse has been deemed at some stage, sufficiently damaging to justify appropriate regulatory intervention and control.

Re-classification of codeine as a scheduled controlled drug offers a unique opportunity to achieve regulatory control by transferring administrating responsibility to a system of governance procedures, accredited prescribers (doctors) and pharmaceutical providers, supported by a controlled drug register to ensure strict monitoring of prescribing patterns, compliance, inventory and safe disposal of all forms of opiate and controlled medication.

In conclusion

The misuse of codeine and related opioid medication is a significant public health challenge in Nigeria in 2018. Tackling the problem will require a coherent and coordinated response, involving a collaboration of government agencies, private citizens and community stakeholders, each assuming responsibility for supporting a strategy of enhanced public education, robust pharmaceutical governance and effective regulatory control measures for the administration of codeine and opioid-related medicines throughout the health sector.

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Feedback
Health & Social Care in Nigeria

Abimbola Aluko

Abimbola Aluko graduated from Imperial College School of Medicine in the UK in 2018. He spent seven weeks on various electives in Nigerian hospitals after graduating and now works as a junior doctor at Blackpool Victoria Hospital in the north-west of England.
Abim has a keen interest in music, the arts and healthcare issues in the developing world. He hopes to train and work as a Paediatrician in the NHS and internationally over the next few years.

I was privileged to be given the opportunity to pursue a seven-week medical elective in Nigeria between April and June of this year. Touching down at Murtala Muhammed Airport, I witnessed the unique hustle and bustle of the Lagos environment, the intense heat and the army of motorists (some of which might draw more than a raised eyebrow from British police officers!).

This introduction was only to be the beginning of the culture shock I received on visiting the country of my birth for the first time as an adult. Having said this, I enjoyed my stay in Nigeria. One can come to appreciate the beauty in this country, both visually and culturally. I do not wish to punch holes in the establishment (there is no such thing as a perfect system after all) but merely aim to reflect upon my experience in the hope that my thoughts and observations may contribute towards the ongoing discussion on health and social care issues in Nigeria's fledgling but rapidly evolving healthcare sector.

The financial model – can we all afford our basic right to healthcare?

The first difference I had to wrap my head around was the financial model. In the UK, a high tax both on income and spending has meant that healthcare is received 'free' at the point of need. There is the option of private health insurance to bypass queues or see a preferred physician – convenience or cosmetic procedures also tend not to be free. However, everyone in the UK has access to everything from a routine health check-up to critical care and life-saving treatment.

By contrast in Nigeria, most treatment is financed by the patient. While this means the burden of health care falls less on government, it does assume that Nigerians can afford the cost of healthcare, and this can be quite considerable! One figure I heard quoted was in the region of 120,000 Naira for three days of admission with no interventions.

Companies usefully offer health insurance packages to employees, but are these benefits available to everyone? Nearly 20% are unemployed. Does this mean they do not deserve healthcare? Many would argue that adequate healthcare provision is a human right despite financial worth. Ultimately since the burden is not shared amongst the entire population through a government-initiated scheme, there is an inevitable socioeconomic imbalance to healthcare access in Nigeria.

I was extremely troubled during this placement, to witness a child patient being refused access to the Emergency Room (ER) at a government hospital despite being in need of medical attention at the time. The child in question was eventually granted access only after the parents had managed to gather the required sum of cash to pay the fees.

It would only be fair to mention at this point that Nigeria is in the process of implementing a National Health Insurance Scheme (NHIS) for all its citizens. Although its existence represents an indication of quite dedicated political will in this area, the Scheme is fraught with early difficulties and precisely how effective it will be in the long run, only time will tell.

The service provider model – hospitals vs healthcare trusts

A common trend noticeable in both private and public sector healthcare practice in Nigeria is that most hospital establishments attempt to provide every amenity (and service) necessary to cope with every possible demand or requirement a patient may have. The rationale behind this approach no doubt is to encourage the patient to patronise the hospital's services as a 'one-stop-shop' for all things medical.

However, this approach is often met with the problem of a lack of much-needed funding to run and maintain such facilities. The problem is particularly evident in government-run hospitals which as expected, do not have the additional benefit of private sector investment funding. The inevitable consequence is that shortcuts are taken, which go on to compromise the quality and safety of care rendered by these establishments.

In many instances, facilities (or entire hospitals in some cases) are shut down due to

> "In Nigeria, most treatment is financed by the patient.

poor maintenance. At present, there are very few government hospitals with working CT scanners, due mainly to the initial and ongoing costs of maintaining expensive infrastructure across multiple units and specialities.

A system of healthcare 'trusts', is an aspect of UK healthcare delivery that I have often taken for granted. Healthcare centres across the country are split into deaneries with responsibility over regions. For example, the North West England deanery provides coverage for much of the north west of England. Within these deaneries, healthcare provision resources are divided and organised into trusts.

This system of organised healthcare distribution ensures that within trusts and deaneries, all services dedicated to a region are not concentrated entirely in one hospital. For example, one hospital in the trust might happen to be a tertiary centre for cardiology while another might be a tertiary centre for renal medicine. If a patient who happens to be in a particular centre now requires tertiary expertise that is held in a different hospital within the same trust, they are simply referred and transferred to that hospital for treatment.

The result is that budgets are well organised and allocated within the trust, and less funding goes to staffing and supplying all hospitals with all the amenities for multiple tertiary centres when this can be divided up within trusts and deaneries. It also offers the added advantage that there is not necessarily a single 'centre of excellence' for all things but rather, a healthy spread of healthcare professionals and resources across the various units within a region.

Although it is often inconvenient to travel to get a specific service elsewhere, introducing a system of devolved responsibility has encouraged cost-effectiveness in service delivery while enabling a focus on specialised, reliable care.

Multidisciplinary approaches

Doctors are held in high regard in Nigeria. While I encountered many good examples of patient-centred care, I also observed that patients are more inclined to invest a great deal of trust and belief in their doctor.

While this is amazing and interesting to observe, I foresee problems arising in situations where other healthcare professionals are professionally better suited to address the needs of the patient. The ethos of a multidisciplinary team (MDT) is that all the professionals involved in the treatment of a patient are valued in their own right and have their role to play.

A good example would be in the field of obstetrics, in which it is generally considered good practice that unless the mother or foetus have known health concerns (or complications), delivery of the infant is midwife-led (assuming the existence of a suitably qualified midwife). The obstetrician's role in the case is altered to one of managing any medical or surgical problems that may arise during the pregnancy.

Culture & religion – friend or foe?

Religion has a significant role to play in healthcare delivery. During consultations, I would regularly hear patients express their faith and trust in God as an integral part of the process. Unfortunately, religion in my view can become intrusive in some cases.

One example of this was a patient whose family admitted to taking their child to church for prayers rather than have them admitted to the nearest hospital.

> "The burden of health care assumes that Nigerians can afford the cost.

The situation remained the same for several years until they eventually succumbed and presented at the hospital years later.

In another case, a mother explained that she was close to giving up hope and contemplating taking her child to the church instead of pursuing tertiary care in the hospital. It is well recognised that patients do have spiritual and religious needs during this challenging period in their lives for a variety of reasons. In the UK, chaplains are regularly invited onto the ward and encouraged to attend (on request) to patients' spiritual needs, obviating the need to self-discharge to attend church.

Religion also potentially becomes an obstacle in matters relating to terminal conditions and palliative care. Almost routine in UK hospitals is the concept of *'Do Not Attempt Cardiopulmonary Resuscitation'* (DNACPR) orders. When a patient is diagnosed with a terminal illness, Cardiopulmonary resuscitation (CPR) is generally not attempted as it is deemed futile in these cases, often undermines the dignity of the patient and serves only to cause further distress to all concerned.

As a believer, it is my opinion that spirituality does have a significant role to play in healthcare delivery and can even be incorporated to form a part of the treatment process. As previously mentioned, I have observed chaplains provide this function in the UK by fulfilling patient's spiritual needs auxiliary to primary treatment.

In most modern religions, death is unavoidable and merely the gateway to the next life. Surely, an aspect of healthcare provision is ensuring that this process of transition is as comfortable as possible for the patient and their loved ones. I believe this to be an essential part of the basis on which a multidisciplinary team (MDT) involvement in palliative care treatment is offered.

Maintaining national minimum health standards

One of my other thoughts during the elective in Nigeria was that countries such as the UK could maintain such high standards of healthcare primarily due to periodic audits conducted by students and staff. Government organisations such as the Care Quality Commission (CQC) regularly inspect healthcare provision centres and ensure minimum

standards are met prior to re-accreditation. A unit that fails to meet these standards may be heavily sanctioned, often in the form of a fine or introduction of guidelines and 'special measures' that ensure the failure is remedied and does not occur in future. This system not only provides an incentive for the country to maintain health standards but also allows individual units to take pride in their own achievements and engage in healthy competition with other units, hospitals and trusts.

A system of healthcare 'trusts' is an aspect of UK healthcare delivery that I have often taken for granted.

Although I observed during my elective that there is a practice among some private hospitals to seek accreditation through inspection by external bodies every 3 (or more) years, I also observed that these inspections are generally conducted by private (albeit international) organisations, strictly by invitation.

I did not notice any national body that regularly audited hospitals in order to assess standards.

Closing thoughts

I must stress that my time in Nigeria was both enjoyable and hugely insightful. I was made to feel very welcome by all during my seven-week stay in the country. I witnessed on several occasions, staff demonstrating a passion for providing the best medical care possible, correctly following guidelines and standards despite the odds. Chatting with them, I learnt many lessons of staff experiencing delays in salary and enduring unsociable working hours – a situation with many inherent implications of its own!

It is evident that health professionals in Nigeria are extremely passionate about seeing a positive change made to healthcare provision across the country. This attitude could not have been more evident than when I was given the opportunity to attend the BeyHealth Masterclass Conference on Oncology and Cancer Care, much of which has motivated the writing of this article.

I am extremely hopeful of witnessing significant growth and progress in the Nigerian health sector in the years to come. As I also return to the UK to begin my journey as a practising clinician, I am keenly aware of the value of this experience in providing for me, an extremely useful window into the responsibilities and challenges of healthcare provision in the developing world.

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