



Commonwealth Dental Association

Working for Oral Health in the Commonwealth

CDA BULLETIN

The Newsletter of the Commonwealth Dental Association
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From the Editor



D Y D Samarawickrama

One of the major oral health problems for people living in low income countries is a shortage of dentists and other oral health care workers capable of delivering oral health care. Thus, in an attempt to remedy this, efforts have been made to increase the number of establishments training dentists and allied oral health care workers worldwide. Nevertheless, large disparities with regard to the ratio of oral health care workers to the population of a country remain. For example, in the developed countries, there is on average one dentist per 1,600 people. In the less developed countries this ratio can be as adverse as one dentist per 119,000^{1, 2}. It should be noted that even within a country, the ratios can vary between urban and rural populations. For example, in India, the national dentist to population ratio is 1:33,800 whereas in rural areas, this is 1:300,000³.

These measures to open more dental schools have been based on past wisdom that a favourable

dentist to population ratio was a requirement for improving oral health of a population. The curricula of these schools have often been traditional with emphasis on restorative type of clinical skills. However, lone standing vertical oral health programmes focusing on the provision of conventional restorative care are a thing of the past [1].

In any case, dental schools are expensive to build and expensive to run. Even some long established dental schools in some less developed countries are in a state of disrepair and often short of basic equipment and materials. In addition, recruiting suitably qualified dental academics to staff these institutions is also a major challenge.

Even if a country is able to train 100 dentists per year (many are not in a position to do so), it would be decades before a favourable ratio would be achieved. In the meantime, the oral health of the population would continue to deteriorate in the absence of a clear policy.

Will getting a favourable dentist to population ratio improve a nation's oral health? Not necessarily so. For example, the dentist to population ratio in Syria improved from 1:8500 in 1985 to 1:1500 in 1998. However, this had little impact on the Care Index (F/DMFT x 100%) of the population². Another example is the Philippines with a dentist to population ratio of 1:5000. However, its Care Index of 3% is lower than that of Sri Lanka with a dentist to population ratio of

1:20,000 but a Care Index of 7% [2]. It must be noted that the Care Index is a measure of a country's restorative care level. No country with GDP of less than \$ 5000 has a CI greater than 30%. The low income countries cannot afford such expense.

The Alma Ata Declaration in 1978 has influenced the way public health officials and governments try to improve health. The Ottawa Charter for Health Promotion adopted in 1986 has reshaped the way governments develop oral health care policies. Thus, many dental public health experts have advocated a different, population based approach using primary oral health care model as a way of improving the oral health of the population within a reasonable time frame. This in turn will impact on the types of oral health care workers who need to be trained and their skills mix. The curricula underpinning the education and training of oral health care workers need to be fit for purpose, and

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have to be carefully designed to achieve stated policy outcomes. Merely copying existing curricula of established dental schools especially in the high income countries with emphasis on restorative care will not do.

Only thorough concerted action by oral health care professionals, national dental associations, other professional bodies, governments and international organisations such as the CDA and FDI will succeed in convincing politicians and other decision makers that mere opening of new dental schools is not going to achieve "Oral Health Care for All" within a reasonable time. Any actions need to be based on curricula, policies and funding that are fit for purpose.

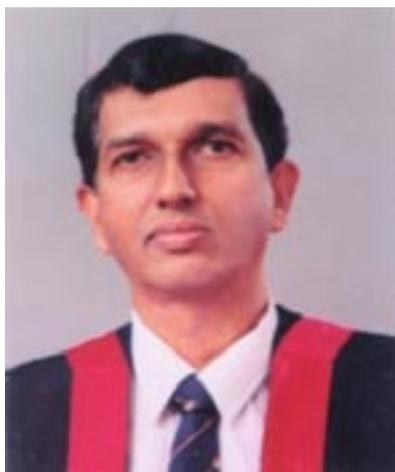
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Editor

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President's Message



Hilary Cooray

One of the challenges that the Commonwealth Dental Association has had to face, which impacted on the finances of the CDA is the global economic downturn.

As the world still struggles to come out of the recession the lack of income to the CDA from sponsors, manufacturers and well wishers has had an effect on us. This is part of the phenomenon of globalization. We have to face up to this situation with innovative ideas and new thinking. Each country needs to start looking inwards for improvement of oral health by making use of indigenous resources available within one's ambit. This is also the time for all members of the Commonwealth League of Nations to join the Commonwealth Dental Association, to form one single united body for purpose of sharing knowledge and experiences, in order to reach the common objectives. It is in this spirit that I invite all National Dental Associations of the Commonwealth to become members of the CDA to reach its goals.

We have seen some encouraging trends in developing countries such as a decline in caries in children, more adults preserving their natural teeth and a decrease in the use of tobacco and alcohol. However, we still have to face the challenges of poor oral health in deprived communities, diet related oral disease (including dental erosion due to soft drinks) and the poor oral health of underserved, disadvantaged people. The focus of discussion at the next meeting of the Commonwealth Health Ministers in Geneva, in May 2011, will be "Non Communicable Diseases" which is a topic strongly related to the challenges we face today.

It is indeed my hope that the National Dental Associations and the CDA complement each other to work in mutual collaboration to take advantage of such joint ventures for the greater good of the oral health of the people of the Commonwealth in particular and the world in general.

Hilary Cooray

President

FINANCIAL REPORT July 2010 - June 2011



Dr Anthony S Kravitz OBE
CDA Treasurer

At this time of presentation of my financial report to the Bulletin, and like most Treasurers, usually I give a gloomy report. Well this one will not conform to the usual mode – it will be a little more upbeat!

We are half way through our financial year, at the time of writing (January 14th) and I am able to project more accurately what will be the outcome for the rest of the (financial) year – as our remaining projected activity is very limited, accidents and emergencies excepted, of course. To remind you, our financial year runs from July 1st to June 30th annually – which is the same as that of the Commonwealth Foundation, our principal sponsor.

The budget for 2010-11, which I prepared last summer, was accepted by the CDA Executive and forecast a turnover of about £29,000 – with a year-end surplus, after payment of all expenses. I estimated that this would be about £3,500 which would replenish our reserves, after our slight deficit in the last financial year, of £584. At this moment it looks like the year-end surplus might be a bit larger than the forecast.

Income is going to be a lot lower than in the budget. The loss of the Canadian Dental Association as members of the CDA, last year, did

translate into lower expectations for our subscription income, as they were major subscribers. However, the surprise but very welcome arrival of the New Zealand Dental Association as members has counter-balanced that, to a limited extent.

But, it is the drying up of external sponsorship which has been the biggest "blow" to our finances. We had hoped to have this edition of the Bulletin sponsored – this has not happened. And, there is no activity to offer a potential sponsor now, until our next financial year.

So, where does the surplus come from? Well, of course we keep our administrative expenses as tight as we can – and, as usual, have been helped by the generosity of the British Dental Association, with their pragmatic view about some costs, which they pick up.

Also, we allowed for a large travel subsidy for participants of the recent Lagos workshop, but in the event (for various reasons) international participation was much smaller than we anticipated; our costs were covered by the sponsorship money given to us by the Commonwealth Foundation and I did not need to use the £4,000 I had set aside from our funds, towards the cost of subsidised travel for participants.

It is as well that our reserves are built up as there is a big increase in our planned activities for the 10-months period from November 2011 until September 2012. These include joint CDA/National Dental Association events in Barbados (November 2011) and Malaysia (May 2012), together with our Triennial General Meeting in Cape Town (later in 2012); there is also a People's Forum at the Commonwealth Heads of Government meeting in Perth (Australia) in November 2011 and we may need to participate in that. It is very unlikely that sponsorship funds will be offered to cover all the costs of these and I am sure we are going to have to dip into our reserves to help fund them.

ANTIGUA & BARBUDA GET A DA

The Bulletin is pleased to announce the formation of a Dental Association by the dentists in Antigua and Barbuda. CDA treasurer Dr. Anthony Kravitz played a key role in getting the Association off the ground by getting a few of them together, after extensive talks with Sir James Carlisle, who is an Antiguan dentist and the former Governor-General of the islands. Anthony then produced the first draft of a constitution, which they adapted for their particular use.

At their first meeting, the members of the Association conferred Honorary Membership on both Sir James and Anthony, in recognition of their pivotal roles. The pictures below are from the inaugural social event.



Presenttion of Honorary Membership to Sir James Carlisle



Sir James Carlisle presenting a certificate at the Lagos Conference

CALLING ALL CDA MEMBERS!

The CDA was created in 1990 to work for the improvement of oral health in the Commonwealth, and to enhance the understanding among policy makers of the importance of oral health and an appropriately trained workforce. Many people give considerable time to run the organisation, whether they are involved with running the association, based at national dental association helping to arrange workshops or other activities, or producing the CDA Bulletin or policy statements.

The CDA exists for its membership, and following our successful Triennial Meeting in Singapore in 2009, there was a sense of renewed enthusiasm for the organisation and its aims. We are now at a point where we need you, the members, to contribute further to the work of the CDA. Are you able to share with us any of the following:

- * current oral health care issues in your country
- * any new initiatives linked to oral health care in your country, and related evaluation if available
- * any research or other projects carried out in your country which might be useful for colleagues in other countries.

The CDA may be able to provide limited funding, and we might be able to provide knowledge and expertise to help you in your work, by helping you distribute information through the Bulletin or through our membership list, for example.

The CDA could prove a useful tool in your lobbying and development of oral health policies and strategies, or for getting a message out.

Please contact the CDA office (administrator@cdauk.com) if you wish to discuss any such issues or initiatives.

CDA CONSTITUTION

The current CDA Constitution requires a General Meeting of the membership every three years.

The General Meeting is usually combined with a workshop on a topic relevant to dentistry in the Commonwealth.

It has now been suggested that the CDA could move to having biennial meetings instead, so that we would have a general convention of the membership every two years.

The CDA Executive Committee feels that this proposal, initially made by the Indian Dental Association, is very positive as it would give member associations the chance to meet more often to discuss CDA policy initiatives and feedback on local and national activities. It would also give more member associations the chance to host this event.

The financial consequences have been given an impact assessment by the CDA Treasurer.

Our General Meetings are usually well supported by sponsorship, so he believes that any adverse impact on our funds will be minimal.

If the proposal is acceptable to a majority of member associations, the necessary constitutional changes will be sent to member associations in draft form during 2011, for comment, and then the final proposed version will be put before the membership for approval at the next Triennial Meeting, to be held in Cape Town, in late 2012. If approved, the next full meeting would then be planned for late 2014 or early 2015.

If you have not already done so, please let us know your comments on this proposal.

We will circulate draft amendments to the Constitution in the next few months. Please send your comments to administrator@cdauk.com.

NEXT TRIENNIAL MEETING

The next Triennial Meeting of the Commonwealth Dental Association will take place in Cape Town, South Africa, in the September/October period of 2012 (the final dates have not yet been confirmed). As usual, a programme of workshop and general meeting will take place at the event, which is held in conjunction with the South African Dental Association's Annual Congress and Exhibition.

At the time of the meeting, it will be the beginning of spring time in South Africa, one of the best times to visit the Cape. Set at the edge of the Atlantic Ocean, surrounded by the Cape Floral Kingdom (a World Heritage Site) and adorned with a world-renowned landmark, Table Mountain, Cape Town offers visitors and locals a wonderful experience.

Cape Town is also a great tourist destination, with some of South Africa's top tourist attractions within one hour's drive from the city centre: the Victoria and Alfred Waterfront, Table Mountain, Cape Point, the Cape Winelands, Kirstenbosch Botanical Gardens and Robben Island a short boat trip away. For those who can bring the time, there is the opportunity to undertake trips to some of these.

An initial programme and call for candidacies for elections will be circulated in the first half of 2012, but it is timely now to put a marker in your diaries.

BARBADOS WORKSHOP

Workshop "The Role of Oral Health Personnel in Cases of Abuse"

A new CDA workshop is currently in preparation, kindly supported by the Barbados Dental Association. The four-day event will look at the role which all oral health personnel can play in the recognition of abuse in adults and children. It will consist of lectures looking at identifying, treating and referring persons suffering abuse to appropriate areas. Speakers will include legal professionals, psychologists and forensic specialists. A workshop will then look at items of identification commonly encountered in such cases, and at the extent of abuse within Commonwealth countries and the current role played at national levels.

The event will also look at "Communication in Dentistry, E-learning and Technology in Use for Continuing Education".

The meeting will be held at the Accra Beach Hotel in Barbados from November 23rd to 26th

2011. The Barbados Dental Association has negotiated a special accommodation rate at the hotel, which participants can also utilise for pre- or post-workshop stays.



Accra Beach Hotel, Barbados

Calls for participants and information on funding support will be circulated in the first half of 2011.

Anybody wishing to register to receive further details by email, as soon as these are available, should apply to the CDA Administrator by E-mail at:

administrator@cdauk.com

SPECIAL FEATURE

Oral Potentially Malignant Disorders OPMD (Precancer): Terminology, Diagnosis & Prognosis

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Introduction

Uniformity of terminology regarding oral precancer is important to ensure that the scientific community is studying and discussing the same range of disorders. Currently, there is a lack of consensus on the use of diagnostic and clinical terms in the field of oral precancer. At a Workshop coordinated by the World Health Organization (WHO) Collaborating Centre for Oral Cancer and Precancer in the UK (2005) an analysis of the issues and challenges encountered in the terminology, diagnosis, and methods of assessing prognosis of oral precancer were discussed by an expert group. This new information from their report is outlined here. The term 'oral potentially malignant disorders' (OPMD) was recommended to refer to precancer as it conveys that not all disorders under this term may transform to cancer.

Concept of OPMD (Precancer)

Not many body sites are conducive to visual inspection that allows detection of features of premalignancy before a cancer develops. Some cancers may present de novo without any prior evidence of clinical features of precancer. Fortunately though, during the development of oral cancer, morphological features detectable as precancerous

changes are found in the oral cavity in many subjects that provide opportunities for the early detection and intervention. Understanding these morphological changes that take place during cancer development in order to detect these changes in the precancerous stage may help to increase the chances of intervention to avoid a malignancy.

For the concept of OPMD (precancer) the best information comes mostly from longitudinal studies tracking patients who have had an alteration in the mouth mucosa detected as white/red patches and then subsequently developed cancer at the same site. Furthermore, precancerous changes clinically co-exist at the margins of overt oral squamous cell carcinomas (SCC) confirming the origin. A range of morphological and cytological changes referred to as oral dysplasia that are observed in epithelial malignancies are also present in precancerous lesions, but without frank invasion; The molecular and genomic alterations found in cancer are also detected in the precancer stages suggesting that cancer evolves through a step-wise process accumulating genetic damage over a period [1].

Intervention and consistent follow-up over time are crucial to avoid potentially tragic outcomes. Though the ultimate goal is prevention, even in instances where cancer is present, the earlier it is detected, the greater is the probability of improving the patient's chances of a cure. For those surviving earlier detection improves life expectancy and their quality of life. Unfortunately, the majority of patients do still present to health care facilities when the cancer is already at an advanced stage. Delays in cancer diagnosis arise at a number of levels. Firstly patient related delays defined as the time lost from patient's first awareness of a symptom to

seeking their first consultation with a doctor or a dentist, and secondly, professional delay is defined as time taken from the first consultation with a primary care provider to the first consultation with a treating specialist. Thereafter depending on the country's health care system a scheduling delay may occur after the patient's admission for definitive treatment at a cancer unit.

Precancer - the Terms

The current literature uses a number of terms to refer to potentially malignant disorders earlier termed, precancer or pre-malignant lesions (Table 1), all of which convey the concept of multi-step cancer development. Although, it is unlikely that any uniformity can be reached, at our UK centre the term "potentially malignant" is preferred to denote these changes. This conveys clearly to the patient that cancer may arise at this site or elsewhere in the mouth at a future time, and also that not all precancers progress to cancer during the life time of a patient.

Classification of Precancerous Lesions and Conditions

A classification 2 by the World Health Organization (WHO) in 1978 divided precancers into lesions and conditions (Table 2). During the 2005 WHO Workshop in London, England, the group noted the complexity of this prior grouping of lesions and conditions and recommended to drop the terms lesions and conditions and instead refer to them as potentially malignant diseases or disorders. One of the reasons for this change was the increased biological understanding of precancer in the intervening years, which has assisted healthcare professionals and academicians in establishing that in a mouth showing evidence of precancer at one site further widespread field change in the rest of the oral mucosa is likely [1].

Oral Leukoplakia

Oral leukoplakia is the most common potentially malignant disorder. The resulting definition for oral leukoplakia from the 2005 WHO Workshop deliberation was that the term leukoplakia should be used to recognize 'white plaques of questionable risk after excluding other disorders that carry no increased risk for cancer'. It is a clinico-pathological diagnosis by exclusion after taking a thorough history and a clinical examination to exclude other white patches that may present in the mouth and subsequent investigations, including a mandatory biopsy.

The complete diagnosis of oral leukoplakia involves four steps. First, a provisional diagnosis of leukoplakia is made when a predominantly white lesion at the clinical examination cannot be clearly diagnosed as any other disease or disorder of the oral mucosa and any etiological cause other than tobacco has been excluded. Then, a mandatory biopsy is taken. The third step requires making a definitive diagnosis after histopathology has not confirmed any other known specific disorder. Finally, based on the biopsy result, if no other disorder is confirmed, the lesion is further characterized as leukoplakia, with or without dysplasia.

In this particular process, certain disorders which may also appear clinically white must first be excluded (Table 3). It is important in the training of oral health professionals that they develop a reasonable understanding of the presentation of these various oral conditions in order to distinguish them from leukoplakia and diagnose them differently.

Another area in which difficulties in terminology may present is in the division of leukoplakia to clinical types. Once leukoplakia is diagnosed, it is further classified as either a homogeneous or a non-homogeneous (i.e., speckled, nodular, verrucous, proliferative

verrucous) variety.

Leukoplakia that presents as flat and uniformly white is referred to as homogenous leukoplakia. Non-homogenous varieties of Leukoplakia are at higher risk of transformation than uniformly white lesions. The non-homogenous varieties (i.e., speckled, nodular, and verrucous) therefore deserve special management considerations. Speckled variety is identified by the presence of mixed, white, and red areas while retaining a predominantly white character, and nodular leukoplakias present with small polypoid outgrowths, that appear as red or white excrescences. The verrucous variety while retaining the white appearance demonstrates surface corrugations. The speckled variety is also referred to as erythroleukoplakia.

Patients with white and red lesions pose an enormous challenge in the initial consultation (e.g., where to take the biopsy from) and later how to manage the spectrum of changes observed. Adjunct consultation with a hospital specialist would be useful in such instances, particularly for dentists inexperienced in determining where to biopsy. It is also important to recognize that atrophic epithelium often found in adjoining areas may demonstrate more histologically advanced changes compared with keratotic plaques that often present a benign appearance.

Proliferative verrucous leukoplakia is characterized by a wrinkled or corrugated surface appearance and involvement of unusual multiple oral sites—is not fortunately common, but almost all individuals who exhibit this characteristic disorder often develop recurrences after removal of leukoplakia and subsequently cancer at these sites. Therefore, it is important to identify its very variable behavioral patterns (i.e., multiple simultaneous leukoplakias of multifocal and widespread nature, and the potential to recur after removal).

Erythroplakia

Another clinical type of OPMD is the red variety referred to as erythroplakia. Though less common than leukoplakia, erythroplakia has a higher risk than leukoplakia to develop cancer. The definition of erythroplakia has not changed over the years (i.e., a fiery red patch that cannot be characterized clinically or pathologically as any other definable disease). Most dentists might miss the very subtle changes of erythroplakia. A diagnosis of erythroplakia should not be made without considering other diagnostic categories that appear as erythematous lesions of oral mucosa (Table 4)³; a biopsy is essential in differentiating among these categories and if erythroplakia is confirmed severe dysplasia or micro-invasion is often present at the time of biopsy.

To be comprehensive (although it is unlikely to be found in North America and in Europe), there are white and red plaques (often tobacco stained) in the palate of those who practice the habit of smoking with the lighted end of the cigar or cigarette in the mouth. This condition is referred to as "reverse smoker's lesion of palate".

The term "snuff dippers' lesion" is used to refer to white patches found in people who use smokeless tobacco products commercially available as moist snuff. Few studies have reported oral cancer among elderly snuff dippers. The natural history of these lesions in young people and athletes who use these products remains unknown. Information from Scandinavian countries, particularly Sweden where snuff use is prevalent indicates these lesions are reversible and unlikely to change to cancer, but incidences of oral cancer among patients who use snuff over long periods have been reported; in 2004, an IARC evaluation reported that smokeless tobacco is carcinogenic to humans.

Oral Submucous Fibrosis

Oral submucous fibrosis is associated with the use of areca nut. This form of precancer is mostly encountered in the Indian subcontinent but dentists in US, Europe and Australia need to be vigilant when examining Asian migrants who may practice areca nut (pan) chewing habit. In its early forms, submucous fibrosis presents with a burning sensation that is exacerbated by spicy food, vesiculation, blanching of the mucosa, and leathery mucosa. In late stages, it is characterized by fibrous bands within the mucosa, limitation of mouth opening, narrowing of the oropharyngeal orifice with distortion of the uvula, and woody changes to the oral mucosa and tongue. Atrophy of the mucous membrane is often present but difficult to detect clinically.

Detection of Precancer

The most important step in the diagnostic process for dentists is performing a systematic oral examination that is routinely conducted properly and consistently, regardless of whether or not they are paid to do so. The role of the biopsy is crucial and as mentioned earlier this is to exclude other known specific mucosal conditions that help in the confirmation of leukoplakia (or erythroplakia) and to assess dysplasia if present. Occasionally white or red patches on presentation could be early carcinomas and the biopsy also has an important role to exclude any malignancy in the tissue sample.

Diagnostic Methodologies and Adjuncts

Several tools are currently available for the detection of oral leukoplakia (commonest) or erythroplakia (most serious) of the precancers encountered in clinical practice. For this purpose the dentist could employ as many of the diagnostic aids as possible and required (e.g., toluidine blue staining, Vizilite, and VELscope).



Toluidine Blue

The biggest problem with most products of this type is the need to improve specificity. No robust evidence exists to suggest that these methods of screening, toluidine blue or optical techniques are either beneficial or harmful.

Vital Staining (Tolonium Chloride)

When a surface mucosal abnormality is detected, a clinician may consider vital staining using Tolonium chloride. An adjunctive tool to aid in clinical judgment, it helps identify areas that are more likely to represent dysplasia or cancer. In a trial run with 102 patients using this technique, the agent was found to have 100% sensitivity for carcinomas. The sensitivity rate for precancers was lower at 77%; the specificity rate ranged from 52% to 86%.⁴ One disadvantage of tolonium blue rinse technique is that the rinse or the application should be repeated two weeks later to exclude any non specific dye binding to benign lesions by allowing time for such to heal.

Optical Techniques

Visual or optical techniques rely on the complex interaction of light with tissue. New visual or optical technologies have a potential role in the identification and mapping of mucosal disorders likely to be precancer or cancer. These include in-vivo autofluorescence spectroscopy as a non-invasive visual aid based on autofluorescence emission spectra using an excitation wavelength of approximately 430 nm. With this technology (e.g. VELscope), an area with a diminished or loss of green fluorescence is indicated for further investigation by biopsy.



VELscopeTM System

Another optical technique is chemiluminescence (e.g. Vizilite), whereby the technique produces auto-whitening of leukoplakia following an acetic acid rinse.



Vizilite

With vizilite leukoplakia patches are sharply demarcated and their brightness is enhanced. The specificity, however, still remains low.

In summary, for any oral cancer / precancer detection system if it is to be recommended for dentists' use a clear cutoff point is needed whereby if the test result is positive, then all those patients should have the disease; if the test result is negative, those people should be disease-free. That is the desired goal, but most currently available systems have limitations. The problem is that there are patients with false positive and false negative findings that might cause concern if the system is used by practitioners for general screening without mechanisms for further follow up or facilities for additional investigations.

Prognosis

Determining the prognosis of leukoplakia is a great challenge. Predicting transformation using dysplasia or any other intermediate markers is not entirely accurate⁵. Currently, the microscopic/histological report is used in the decision making prior to any surgical intervention. Based on several criteria that take into account tissue and cellular changes, pathologists offer a grade of none or mild to severe dysplasia, which can sometimes be quite subjective. No single molecular test is currently available for this purpose⁶ but determining molecular signatures that disclose very earliest genetic changes in tissue or body fluids to identify at risk individuals may become routine in the future.

Apart from elimination of life style risk factors (e.g. tobacco cessation, quitting betel quid use, alcohol moderation) the usefulness of other interventions for oral precancer is still in question. An European study that reported on the natural history of oral leukoplakia, involved Dutch patients who underwent surgical intervention and those who only received follow-up. Interestingly, there was no difference in the outcome of these two groups with reference to malignant transformation⁷. A systematic review of treatment of oral leukoplakia has suggested that there is no effective treatment in preventing malignant transformation. However, some treatment modalities for oral leukoplakia including CO₂ laser treatment exist that are effective in resolution of the lesion but relapses are not uncommon. For oral submucous fibrosis, quitting areca nut use, improving oral opening by physical exercises and improvement of micronutrient status is recommended. Chemoprevention is being explored in many settings.

Conclusion

Regular screening of the oral soft tissues enables the detection of asymptomatic oral precancers.

The WHO classification and terminology is recommended to achieve some uniformity in the way we communicate the diagnosis. Case-detection allows ap-

propriate intervention, in particular advice on elimination of risk factors and if indicated, surgical intervention.

Tables

Table 1 Oral Potentially Malignant Disorders (Precancer) - the Terms

- Pre-cancer
- Precursor lesions
- Premalignant
- Intra-epithelial neoplasia
- Potentially malignant disorders (diseases)
- Epithelial precursor lesions

Table 2 Classification (WHO 1978) of Precancerous Lesions and Conditions

<u>Precancerous lesions</u>	<u>Precancerous conditions</u>
Leukoplakia	Lichen planus
Erythroplakia	Submucous fibrosis
Palatal lesions in reverse smokers	Discoid lupus erythematosus
	Syphilis
	Sideropenic dysphagia
	Actinic keratosis

Table 3 Disorders for Exclusion to Diagnose Leukoplakia

- * White sponge nevus
- * Frictional Keratosis
- * Lip – cheek biting
- * Chemical burn
- * Acute pseudo membranous candidosis
- * Leukoedema
- * Lichen planus (plaque type)
- * Lichenoid reaction
- * Discoid lupus erythematosus
- * Hairy leukoplakia
- * Leukokeratosis nicotina palate (smoker’s palate)
- * Skin graft

Table 4 Differential Diagnosis of Erythroplakia

<u>Nature of condition</u>	<u>Diagnostic category</u>
Inflammatory/immune disorders	Desquamative gingivitis
	Erythematous lichen planus
	Discoid lupus erythematosus
	Pemphigoids
	Hypersensitivity reactions
	Reiter disease
Infections	Erythematous candidiasis
	Histoplasmosis
Hamatomas/heoplasms	Haemangioma
	Kaposi sarcoma

(Adapted from Reichart & Philipsen, 2005: Ref 3)

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Please circulate this Bulletin to your colleagues.

It can also be found on the CDA website at:

www.cdauk.com

INFECTION CONTROL IN DENTISTRY

Some Points

Introduction

Infection control is an essential part of dental clinical practice. The pathogens causing infections are: bacteria, viruses, pathogenic fungi (e.g. *Candida albicans*), protozoa, worms and prions (e.g. prion associated with CJD). A great number of pathogens may be present in the blood and saliva of patients. These include Hepatitis B and C viruses, human immunodeficiency virus (HIV), Herpes Simplex virus, respiratory tract viruses and *Mycobacterium tuberculosis*.

Transmission

These pathogens can be transmitted by: direct contact, indirect spread via a carrier, inhalation, ingestion and inoculation. It is impossible to identify those patients who might be carrying pathogens. It is therefore essential to maintain high standards of infection control against all patients.

Patients with HIV or carriers of Hepatitis B or C should also be treated using the standard infection control procedures. Available evidence indicates that in the absence of a sharp injury, any risk of infection to dental personnel during treatment is negligible.

Prions

Prions associated with Creutzfeldt-Jakob disease (CJD) are much more difficult to destroy than other micro-organisms. In the recent past, it was recommended that such patients be treated using disposable dental instruments. However, more recent assessments have suggested that the risk of transmission from a single dental procedure would be 1,000,000,000 times lower than a tonsillectomy. If dental pulp were to be infective, the risk would increase. However, even after taking a negative view, risk per procedure would still be at least ten times lower than that for a tonsillectomy.

Endodontics

There appears to be evidence that endodontic reamers and files cannot be reliably decontaminated. Therefore, it has been advised that these instruments should be treated as single use and disposed of after each patient. This obviously has serious implications in resource limited settings.

All Instruments

It has to be emphasised that all instruments must be cleaned, disinfected and packaged ready for use to the highest standard. The manufacturers are required to provide validated re-processing instructions.

MRSA

Methicillin-resistant *Staphylococcus aureus* is resistant to many common antibiotics. MRSA colonies can be found mainly in the nose and the skin of hospitalised patients and those who have been discharged recently. However, no special precautions are necessary for the treatment of patients harbouring MRSA.

Ethics

It is unethical to refuse treatment to a patient with a potentially infectious disease in order to reduce risk to dental staff.

Conclusion

Most effective way to reduce cross-infection in a dental practice is to follow standard infection control procedures during treatment of ALL patients including those with MRSA or blood borne viruses such as Hepatitis B.

Abstracted from:

Guidance Notes for the Control of Infection in Dentistry; CE Mercer, A Amla, R Allaker & E Boon; Institute of Dentistry, Queen Mary, University of London, UK. (46 pages)

REPORT OF THE CDA/NDA WORKSHOP, LAGOS, NIGERIA

Professor Adeyemi Olusile,
CDA Vice President for west
Africa

"The Use of Restorative Materials in a Resource Limited Setting"

First Foundation Place, Ikeja,
Lagos, Nigeria, 23 – 24 Novem-
ber 2010

Introduction

CDA hosted this Workshop in partnership with the Nigerian Dental Association. The principal sponsor was the Commonwealth Foundation.

There were over 80 participants, including 6 delegates from Commonwealth Countries outside Nigeria; England, Tanzania, Uganda and Ghana. The programme for the two-day event comprised of plenary and working group sessions.

The Objectives

These were to:

1. Review the epidemiology of dental diseases; the challenges of dental morbidity and mortality,
2. Consider the challenges of restoring diseased dentitions of people living in resource limited settings,
3. Review the treatment needs for the restoration of diseased dentition in resource limited settings,
4. Review the current techniques in tooth restoration and replacement,
5. Discuss effective and efficient methods of integrating current dental advancements into dental practice in resource limited settings,
6. Consider the challenges of effective networking between dental suppliers and practitioners in resource limited settings.

Day One:

Tuesday 23rd November 2010

Upon registration, coffee and tea were served and participants were

able to visit the Trade Exhibition mounted by eight companies.

Professor Adeyemi Olusile (CDA Vice-President for West Africa) opened the workshop on behalf of the President of the CDA, Dr Hilary Cooray who was not able to attend because of visa issues. He welcomed all delegates who had travelled to Nigeria, and all the participants from Nigeria. He then gave the welcome address.

Plenary Session

The first plenary session commenced at 11.00 am for two hours, under the chairmanship of Dr Jimi Osisanya, a former President of the Nigerian Dental Association.

There were three presentations in the form of lectures:

1. *Managing teeth affected by dental caries: Minimally Invasive Dentistry*

Dr M A Sede, Senior Lecturer, University of Benin, Benin City, Nigeria.

2. *The non-vital tooth: making endodontics more predictable*

Dr. Emman Otoh, Acting Director and Head, Basic Science and Research Division, Regional Centre for Oral Health Research & Training Initiative (RCORTI) for Africa, Jos, Nigeria.

3. *Restoring the worn dentition without cast restorations*

Prof D. Y.D. Samarawickrama, Professor and former Head, Conservation Dentistry, Barts & the London, Queen Mary's School of Medicine & Dentistry, University of London.

At the end of each presentation, questions were asked and comments made to which proper responses were made.

There followed a product presentation by GSK Nigeria PLC. The company introduced Sensodyne toothpaste as a useful remedy for sensitive teeth.

Working Group Session 1

The first working group session took place during the afternoon. There were three parallel groups and participants were free to choose any one of them.

The groups discussed and debated the following topics:

1. Does amalgam still have a place in tooth restoration?
2. Composites are only a short term solution
3. Molar Endodontics: too time consuming and therefore not good value for money

Each group had a chairman who directed the affairs and a scribe who recorded the proceedings of the group.

Plenary Session

The second plenary session of one hour completed the day at 5.00 pm, during which each group presented their reports; each was followed by a lively discussion.

Day Two:

Wednesday 24th November 2010

Plenary Session

The plenary session started at 9.00 am, for two hours, under the chairmanship of Professor Adeyemi Olusile, (CDA Vice-President for West Africa)

There were two presentations, again in the form of lectures:

1. *Replacing missing teeth - The removable option*

Dr Temitope Esan, Senior Lecturer, Obafemi Awolowo University, Ile-Ife, Nigeria

2. *Replacing missing teeth - The fixed option*

Professor D Y D Samarawickrama, Professor & Former Head, Conservation Dentistry, Barts & the London School of Medicine & Dentistry, Queen Mary, University of London.

At the end of each presentation, questions were asked and

comments made, to which proper responses were made.

There followed a product presentation by Planmeca Oy, Finland.

Working Group Session 3

The third working group session again lasted two hours, until 1.30 pm (including a plenary session to present the group reports). There were two parallel groups and participants were free to choose either one.

The groups discussed and debated the following topics:

1. Bridges are too destructive
2. Is there a place for implants in a resource-limited setting?

Again, each group had a chairman who directed the affairs and a scribe who recorded the proceedings of the group.

There was then a plenary session, during which each group presented their reports; each was followed by a lively discussion.

Conclusion of the Workshop

Thereafter, the Secretary of the Nigerian Dental Association gave a vote of thanks, plaques were presented to those who presented lectures on the two days and each participant received a certificate of attendance.

The Chairman declared the workshop closed at about 2.30pm, after which lunch was served before the participants departed.

A further report of the Workshop will appear in the next issue of the Bulletin.

LAGOS WORKSHOP PARTICIPANTS



Fact Box

Tobacco & oral health

Tobacco can cause the following:-

- Oral cancer
- Gingivitis
- Periodontal diseases
- Premature tooth loss
- Halitosis
- Loss of taste & smell
- Staining



Dental Digests

Drug treatment of oral sub-mucous fibrosis: a review of literature. Jiang X and Hu J J Oral Maxillofac Surg 67 1510 – 1515 (2009)

This is a chronic progressive scarring disease affecting the oral mucosa. It typically affects Asian populations. It has a potential for malignant transformation with a reported risk from 2.3 – 7.6%. Affected patients complain of burning sensation, blanching and stiffening of oral mucosa. In advanced stages, there may be difficulty of opening the mouth.

There is evidence that areca nut use is the major aetiological factor. However, the exact mechanism of action is not understood. Treatment strategies can be surgical and non-surgical. Steroids, fibrinolytic enzymes, anti-ischemic vasodilators, anti-oxidants, anti-fibrinolytic agents and nutritional supplements have been used with varying degrees of success. Many alleviated symptoms such as burning sensation but none relieved trismus. Physiotherapy has also been tried with a view to overcoming trismus.

Interventions for treating traumatised permanent front teeth: avulsed and replanted. Day P and Duggal M Cochrane Database Systematic Review (1) 2010-12 – 22

The current practice is to replant avulsed teeth as soon as possible. Measures taken to avoid dry-

ing of the periodontium such as immersion of the avulsed tooth in milk while awaiting replantation are likely to improve chances of periodontal healing. However, available evidence suggests that 73 – 96% of replanted teeth are eventually lost. In instances where the avulsed tooth has been subject to drying for more than 60 minutes, root canal treatment before replantation does not confer further detriment.

These results were found after a review of three studies involving 162 patients and 231 avulsed teeth.

Outcomes of nonsurgical retreatment and endodontic surgery: a systematic review Torabinejad M, Corr R et al J Endod 35 930 - 937 (2009)

Although there have been many advances in endodontic therapy in recent times, the success rate has remained around 90%. Therefore, methods of managing failures of root canal therapy are important issues.

Available evidence suggests that although endodontic surgery offers more favourable initial success, non-surgical treatment offers a more favourable long term success.

These conclusions have been drawn following a review of 34 papers. Endodontic surgery gave a success rate of 77.8% at 2 - 4 years. However, at 4 - 6 years, non-surgical treatment gave greater success of 83% when compared with surgical endodontic therapy with a rate of 71.8%.

Fact Box

Average DMFT in 12 year olds

> 3.5	Bolivia, Gabon, Guatemala, Honduras, Saudi Arabia, Ukraine
2.6 – 3.5	Afghanistan, Argentina, Brazil, Madagascar, Turkey, Russia
1.2 – 2.5	India, Ireland, Kenya, Malaysia, New Zealand, Sri Lanka, Sudan, Uganda, Zimbabwe, Zambia, USA
0.0 – 1.1	Australia, Botswana, China, Germany, Ghana, Malawi, South Africa, Sweden, Tanzania, UK

CDA Contacts

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Dr Sam Thorpe - Executive Secretary

CDA Administration

General Matters:

For queries of a general nature and membership please contact the CDA Administrator, Ms Ulrike Matthesius at: Administrator@cdauk.com

CDA Secretary Matters:

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TRANSFORMING THE WAY WE THINK ABOUT WATER STEWARDSHIP

The Coca-Cola Company's Approach

Water is the most important resource on our planet. In the years to come, water supply and quality problems are expected to grow increasingly acute with the greatest challenges likely occurring in Africa, West Asia, China, India and Indonesia. It is predicted that some two-thirds of the population will be living in water stressed areas by 2025.

At Coca-Cola, we believe everyone has a responsibility to improve the management of water resources. We've set a global goal to safely return to nature and communities an amount of water equivalent to what we use in all of our beverages and their production by 2020. To achieve our goal, we're working to improve water use efficiency, treat wastewater from our bottling plants and replenish water through participation in community water projects that include watershed protection and conservation, expanding community access to drinking water and sanitation, and improving water for productive use.

Since 2005 we have supported 320 Community Water Partnership projects in 86 countries. Through these projects, we have engaged with hundreds of organizations with a focused expertise in community development and environmental stewardship. One of the projects we support is aiming to provide access to clean water for over two million people in Africa. We call it the Replenish Africa Initiative (RAIN).

RAIN: Providing Access to Clean Water for Over 2 Million People in Africa

In Africa, some 300 million people are living without access to clean water. Even more are living without access to basic sanitation. The Replenish Africa Initiative (RAIN) is The Coca-Cola Company's contribution to helping Africa achieve the United Nation's Millennium Development Goal on clean water and sanitation access.

"Water is critical to the health and economic prosperity of the communities we serve. If the communities we serve are not sustainable, we don't have a sustainable business," says Muhtar Kent, Chairman and CEO, The Coca-Cola Company.

Launched in 2009, RAIN is a \$30 million, six-year commitment to enable access to clean water for over 2 million people in Africa by 2015. RAIN will support three types of projects: water access, sanitation and hygiene education; watershed protection; and productive use of water.

Implemented by The Coca-Cola Africa Foundation, RAIN aims to have at least one community water project in every African country by 2015. Coca-Cola is working to secure matching funds for every dollar it contributes with matches already secured for 2009 and 2010. To date, RAIN has partnered with 30 funding and implementing partners including CARE, Christian Children's Fund, DAPP, Etisalat, FHI, Mvula Trust, NCMI, SFH, USAID, UNICEF, Winrock, World

Vision, and local and national governments.

"No single organization can resolve Africa's development challenges, but when business, government and civil society work together, hand-in-hand, we can have a huge and indeed transformational impact on water resources," said William Asiko, president of The Coca-Cola Africa Foundation.

The Coca-Cola Company also supported RAIN Water for Schools, a creative fundraising effort, which ran in coordination with the 2010 FIFA World Cup™, with a goal to provide safe drinking water to over 200 schools across Africa. Each time a footballer celebrated a goal with a dance, the Company donated funds to RAIN Water for Schools.

RAIN contributes to the Company's water stewardship goal of returning to communities and to nature an amount of water equivalent to what is used in its beverages and their production by 2020.

The Coca-Cola Company will continue to engage with stakeholders and communities to take action on important water issues while working collaboratively to develop a truly water-sustainable business on a global scale.

To learn more about RAIN, visit: www.tccaf.org

To learn more about Coca-Cola's water stewardship efforts, visit: www.thecoca-colacompany.com/citizenship/reporting.html

Fact Box

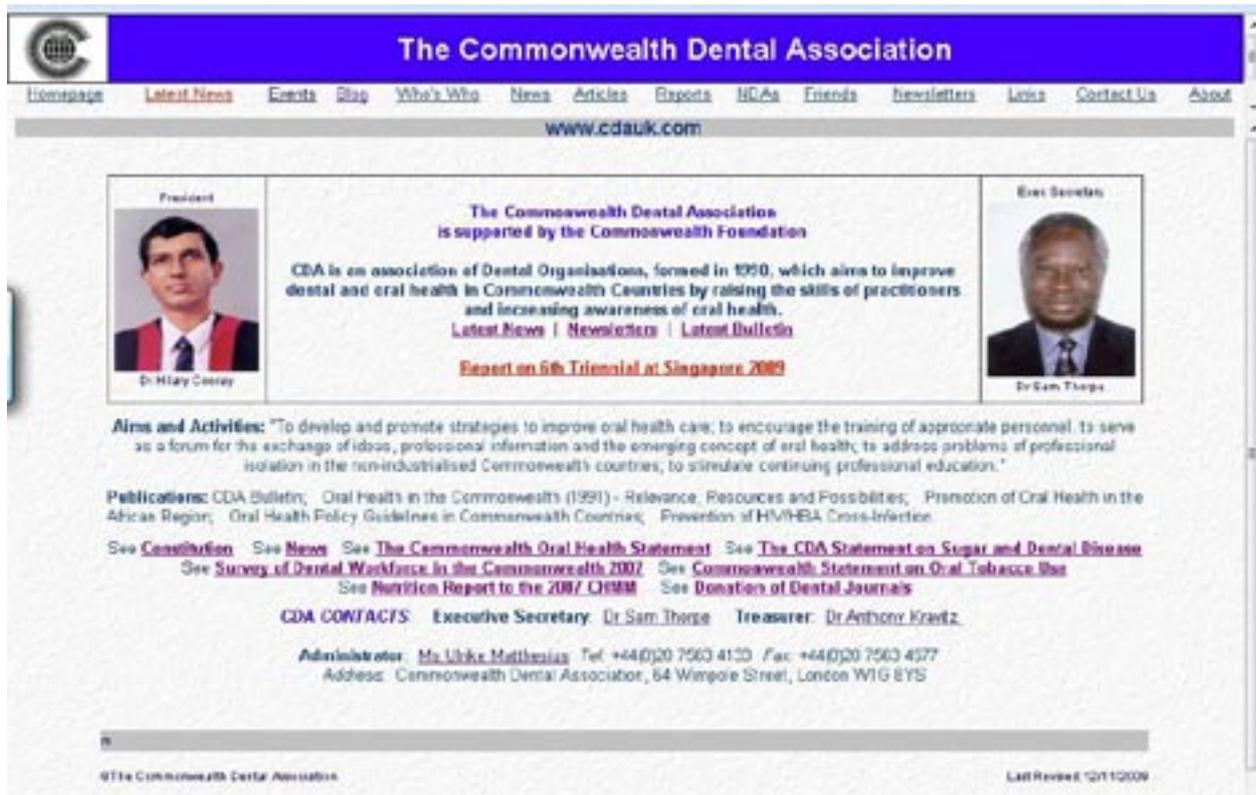
Health Expenditure

Only 13% of the world population live in high income countries but consume 88% of the world health expenditure.

About 25% of the world population live in middle income countries but consume only 10% of the world health expenditure.

Around 62% of the world population live in low income countries but have only 2% of the world health expenditure at their disposal.

CDA WEBSITE



The CDA website provides a facility for the dissemination of information to all the Commonwealth dental associations and includes access to the former CDA Newsletters and subsequent Bulletins.

The website also contains articles of relevance to the CDA, a Who's Who of the current Executive Committee and, importantly, contact information for CDA and its officers.

Whereas previously the CDA had a large number of Newsletters

and Bulletins printed and posted to Commonwealth Associations, the cost of printing and distributing has been saved by only making the Bulletin available on the web and by email.

The printing costs saved are now used to further the CDA's other objectives and compensate for the increasing difficulty of attracting support grants in the current financial climate.

The CDA Executive wishes to remind associations that the CDA

website is being used for information and announcements so they should make a point of visiting it from time to time. If they wish to be notified by E-mail of any new information put on to the website then they should send CDA the E-mail address of the person to be notified. The E-mail should be sent to:

webmaster@cdauk.org

The CDA website address is:

www.cdauk.com

The Editor wishes to apologise for the delay in the publication of this issue of the Commonwealth Dental Association Bulletin due to reasons beyond his control

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