

# **WEST AFRICAN JOURNAL OF MEDICINE**

ISSN 0189 – 160X

Volume 37

No. 1 (Supplement)

January–March, 2020

## **BOOK OF ABSTRACTS of Collège Ouest Africain des Médecins (COAM) West African College of Physicians (WACP)**

**43<sup>ème</sup> Assemblée Générale et Réunion Annuelle Scientifique  
43<sup>rd</sup> Annual General & Scientific Meeting  
Benin 2019**

**PUBLISHED BY  
THE WEST AFRICAN COLLEGE OF PHYSICIANS  
AND  
THE WEST AFRICAN COLLEGE OF SURGEONS**



# WEST AFRICAN JOURNAL OF MEDICINE

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# WEST AFRICAN JOURNAL OF MEDICINE



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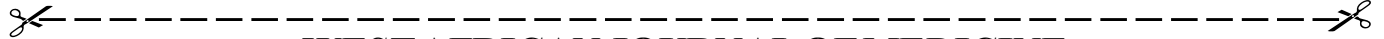
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The mission of WAJM is to educate clinicians, improve the life and care of patients, stimulate and disseminate findings from research in medicine and allied biomedical sciences and related areas and provide a forum for the documentation and exchange of information in the clinical and biomedical sciences.

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The Journal accepts only articles that have neither been published nor are being considered for publication by any other journal.

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- (4) **Introduction;**
- (5) **Subjects, Materials and Methods;**
- (6)

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4. The following sequence is followed: (1) Title page, (2) Abstract, Keywords, (3) Abbreviations, (4) Introduction, (5) Subjects, Materials and Methods, (6) Results, (7) Discussion, (8) Acknowledgements, (9) Duality of Interest, (10) References, (11) Tables, (12) Figures, and (13) Legends to Tables and Figures.
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# WEST AFRICAN JOURNAL OF MEDICINE



## INFORMATION FOR CONTRIBUTORS

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The *West African Journal of Medicine* (WAJM) publishes contributions of professional, scientific and educational interest to medical and dental practitioners and researchers and those in related disciplines, with special focus on medical practice and research in Africa and its people. The aim of the *Journal* is to provide a medium for international dissemination of research findings in West Africa and elsewhere and to promote co-operation amongst and between medical researchers in Africa and elsewhere. The *Journal* is published in English and French. Supplements are published upon arrangement with the Editor-in-Chief.

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**Legends for Figures.** Type each legend for an illustration double-spaced, starting on a separate sheet, with Arabic numerals corresponding to the figure. This should start with a short title, followed by a short, cryptic description of the legend. All abbreviations and symbols should be explained in the legend. Magnification and stain for any microphotograph should be given at the end of the legend for the figure, where appropriate.

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Present units of scientific measurements in the units in which the research was conducted (with the conventional or SI equivalents in parentheses) in the text. In a table or figure, a conversion factor should be provided as a footnote

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At the end of the article the full list of references should give the surname and initials of all authors unless there are more than six, when only the first six should be given, followed by et al. The author’s name should be followed by the title of the article, the title of the Journal abbreviated as in *Index Medicus*, the year of publication, the volume number and the first and last pages. For books, the references should follow the following format: the author, title of book, place of publication, the publisher, the year and the relevant pages. Journals not listed in

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## Examples of References

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1. **Standard article:** Musumuta G, Miakama T, Okoro P. Pneumonia in Lagos Children. *West Afr J Med* 1997;234:45–49.

2. **Special format:** Letters or abstracts: As for articles with Letter or Abstract Oshare, EO. Tetanus in Lagos (letter) *Niger Med J* 1988; 1: 301.

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Makamer EN. *Diabetes mellitus for Medical Students*. 6th ed. Nairobi. Princess Publisher; 1990.

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### (4) Volume with supplement

Shen HM, Zhang QF. Risk assessment of nickel carcinogenicity and occupational lung cancer. *Environ Health Perspect* 1994;102 (Suppl) 1275–82.

### (5) Issue with supplement

Payne DK, Sullivan MD, Massie MJ. Women’s psychological reactions to breast cancer. *Semin Oncol* 1996; 23(1 Suppl 2):89–97.

### (6) Volume with part

Ozben T, Nacitarhan S, Tuncer N, Plasma and urine sialic acid in non-insulin dependent diabetes mellitus. *Ann Clin Biochem* 1995; 32(Pt.3):303–6.

### (7) Type of article indicated as needed

Enzensberger W, Fischer PA. Metronome in Parkinson’s disease (letter). *Lancet* 1996; 347:1337.

- (8) **Personal author(s)**  
Ringsven MK, Bond D. Gerontology and leadership skills for nurses, 2nd ed. Albany (NY). Delmar Publishers; 1996.
- (9) **Editor(s), compiler(s) as author**  
Norman IJ, Redfern SJ, editors. Mental health care for elderly people. New York. Churchill Livingstone; 1996.
- (10) **Conference proceedings**  
Kimura J, Shibasaki H, editors. Recent advances in clinical neurophysiology. Proceedings of the 10th International Congress of EMG and Clinical Neurophysiology. 1995 Oct 15-19, Kyoto, Japan. Amsterdam: Elsevier, 1996.
- (11) **Conference paper**  
Bengtsson S, Solheim BG. Enforcement of data protection, privacy and security in medical informatics. In: Lun KC, Degoulet P, Piemme TE, Rienhoff O, editors. MEDINFO 92. Proceedings of the 7th World Congress on Medical Informatics 1992 Sep 6-10: Geneva, Switzerland. Amsterdam: North Holland, 1992. p.1561 – 5.
- (12) **Dissertation**  
Chaplain SJ. Post-hospital home health care: the elderly's access and utilization (dissertation). St Louis (MO): Washington Univ. 1995. The Holy Bible. King James version. Grand Rapids (MI): Zondervan Publishing House; 1995. Ruth 3:1 – 18. 1973.

**Electronic Material**

- (13) Journal article in electronic format  
Morse SS. Factors in the emergence of infectious diseases. Emerg Infect Dis (serial online) 1995 Jan-Mar (cited 1996 Jun 5); (1):(24 screens); Available from: URL: <http://www.cdc.gov/ncidod/EOD/eid.htm>.
- (14) **Monograph in electronic format**  
CDI, clinical dermatology illustrated

(monograph on CD-ROM), Reeves JRT, Maibach H. CMEA Multimedia Group, producers. 2nd ed. version 2.0 San Diego. CMEA: 1995. Hemodynamics III the ups and downs of hemodynamics (computer program). Version 22. Orlando (FL). Computerized Educational Systems, 1993.

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- International Committee of Medical Journal Editors. Uniform requirements for manuscript submitted to Biomedical Journals. [http://www.icmje.org/urm\\_full](http://www.icmje.org/urm_full)
- 41st World Medical Assembly. Declaration of Helsinki's recommendations guiding Physicians in Biomedical Research and involving human subjects. Bulletin Pan-American Health Organisation. 1990; 24: 606-9.





# WEST AFRICAN JOURNAL OF MEDICINE



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## FROM THE EDITOR-IN-CHIEF

As the renowned Dutch artist Vincent van Gogh once remarked, “*Great things are not done by impulse, but by a series of small things brought together*”. Most of the great theories and inventions science has thrown up over the past centuries probably began with what may be the smallest unit of scientific communication – the abstract. An abstract, as every seasoned academic knows, is that crucial first step in synthesizing an idea into a potentially impactful journal article. We must all cultivate the habit of writing good abstracts – those that fully capture the intended message with a clear and easy-to-follow, yet strong and direct, language. Really, any book of abstracts is a goldmine – a basket of great research ideas to be explored by the readers and even the authors themselves. Of course, no single publication ever provides all the answers on a subject but each one is, at the very least, another piece in the puzzle.

I am glad that this book of abstracts is being published from the proceedings of the 43rd Annual General and Scientific Meeting of the West African College of Physicians held in the Republic of Benin. This is a commendable achievement by the Scientific Committee of our College. At the meeting, the platform presentations were largely stimulating and the posters were equally enriching. The range of subjects – from health policy and medical education to laboratory medicine, community medicine and all aspects of clinical medicine – was broad. Having them all – 124 in total, including 17 symposium presentations, 54 oral communications, and 53 posters – condensed yields a publication that

everyone affiliated to the College can be proud of. Perhaps even more impressive was the diversity in the country of origin of the abstracts within the West African subregion. Overall, this is healthy for our College and must be sustained by all means. We have to keep encouraging our trainees to increase their capacity for research just as we have been finding ways to improve the quality of service we deliver to our patients and other clients.

The overall quality of the postgraduate medical training provided by the West African College of Physicians is the subject of some of the symposium presentations and abstracts herein. A particularly timely one (S01) discusses the seemingly growing trend of migration of healthcare professionals from our subregion to more resource-rich parts of the world – the so-called “brain drain”. The author advocates a holistic approach to addressing this and other similar challenges if we must achieve our goal of universal health coverage. A few others examine the state of the residency training in both the Anglophone and Francophone countries (S02, S03, S04, S09). From the medical education perspective, we are reminded of the dearth of medical specialists in many parts of West Africa and how everyone must step up the advocacy towards improved enrollment of doctors into the postgraduate medical training program. This has to be followed by the retention and equitable deployment of specialists after completing their training (S05). Needless to say, this can only work when most aspects of the work environment – especially remuneration and facilities – are optimal.

A variety of other issues are similarly explored including those

concerning the environment and its contribution to mental disorders (S12) as well as air pollution and health risks (S08). One symposium presentation recommends improved training and preparedness in tackling medical emergencies (S14). The authors of another curious abstract found a high rate of burnout among doctors in Ghana (OC10). This is an interesting finding and one which, as recommended by the authors, should be assessed on a larger scale within our subregion. If similar results are obtained, then appropriate measures should be taken to stem the tide. The many other abstracts address topical issues ranging from ethics in medical practice to the ubiquitous human immunodeficiency virus infection, as well as a host of clinical conditions, laboratory observations and community-based topics.

Going forward, we must take steps to keep strengthening the process of peer-review for our abstracts before they are presented. This will, no doubt, further improve the quality of the output at our scientific meetings and in each subsequent book of abstracts. On a final note, may I encourage all authors to swiftly develop their abstracts into manuscripts. Put in the effort as you prepare to exhibit your work to an even wider audience. Now enhanced more than ever before, our journal, the West African Journal of Medicine, remains an effective medium for this. We shall be waiting to receive them to begin the review process in earnest. I congratulate all the authors and I hope we will keep the pipeline flowing!

**Pr.of. Gregory Erhabor**  
*Editor-in-Chief*  
*West African Journal of Medicine*



# EDITORIAL

It is an honor and a privilege for me to chair the scientific committee of the West African College of Physicians (WACP), which was held its 43rd Annual General and Scientific Meeting in Abomey-Calavi, BENIN Republic.

It should be recalled that the mission of the West African College of Physicians is to improve the state of health of the populations, under the auspices of the West African Health Organization (WAHO).

The members of this committee are as follow:

**Environmental Health:** FAYOMI Benjamin, AYELO Paul, ADE Serge and WACHINO Ablo Prudence, **Pediatric emergencies:** ALAO Jules, LALYA Francis, AYIVI Blaise and KOUMAKPA ADEOTHY Sikiratou, **Adult Emergencies:** ZANNOU Marcel, ADJEN Constant, GNONLONFOUN Dieu-Donné, AZON-KOUANOU Angèle, ZOMALHETO Xavier and KPOSSOU Raïmi.

The theme for this 43rd Congress is **“Health and Environment in the perspectives to achieve SDGs”**.

The 2 different sessions were divided into:

- 4 symposiums,
- 54 oral communications and 54 posters.

## SESSION I

The first symposium, the **Mabayaye Annual College** Lecture focused on: “Human Ressource for Health crisis in West Africa sub region : implications for achieving universal health coverage”. It was presented by **Dr. C. N OBIONU** who concluded by saying: *“If we do not find solutions to these human resources difficulties in the health domain, we will not be able to achieve universal medical coverage. More important, it is needed to solicit policy support for increased funding of Health Insurance to address the challenges of Human Resource*

*management in a health crisis in the West African zone and beyond “.*

The second symposium focused on training in the sub region. Participants’ attention were focused on training. It was splitted into sub-themes, in the French-speaking system on one hand and the English-speaking system on the other hand, the final objective being to evolve towards the harmonization of training curricula for Human Resources in Health between French, English and Lusophone. On the subject of training in the Francophone system, it was **Dr ABDOULAYE Diallo** of Mali, former Director of the Department of Human Resources Development of the West African Health Organization (WAHO), who presented the communication entitled ‘‘ Harmonization of curricula for postgraduate training in Francophone West Africa ‘’. Then **Dr. Edouard N’GOULOMILAMA** from Gabon representing the Executive Secretary of the CAMES and Quality Assurance in medical training : challenges and perspectives’’.

For the English-speaking system, it was **Dr. Roger MANKANJUOLA** from Nigeria who presented on “ Physician Postgraduate training course in anglophone areas”.

Finally **Dr Angela OKOLO** presented a communication on ‘‘ Integration of physician postgraduate training in West Africa : challenges and perspectives’’.

The third symposium addressed the main theme of the conference namely, *Health and Environment* through several chapters of the WACP.

The focus was on “*Air Pollution and Health Risks*” developed by **Dr Serge ADE** from gBenin, “*Environment and Noncommunicable Diseases in the Context of the Sustainable Development Goals*” (SDGs), by **Dr. BSC UZOCHUKURU** from Nigeria.

**Dr AYELO** from Benin focused on

‘‘ *Economic Activities, Ecosystem and Health in Africa: Challenges and Prospects* ‘’, While **Dr. Sammy OHENE** from Ghana addressed “*the contribution of the environment to mental disorders*”. In the field of Medical Emergencies, the presentations focused on the “*Organization of Medical Emergencies in West Africa: state of play and perspectives*” by **Dr. CHOBLI Martin** of Benin, while **Dr. OPREH OWIGHO Peter** Nigeria addressed the synopsis of cardiopulmonary resuscitation courses. Pediatric emergencies, cognitive impairment in the elderly, and noncommunicable diseases were also addressed.

## SESSION II

At the oral and poster sessions, **54** oral communications on Health and Environment, Noncommunicable Diseases, Medical Emergencies, and Open Communications were presented to the participants. In addition, **54** posters were presented. Communications came from 06 countries, namely: **Nigeria (22), Benin (21), Ghana (03), Togo (03), Liberia (01) and Guinea (02).**

This is the occasion to thank all the authors who trusted us by participating in the 43rd WACP Congress, by sharing their scientific experiences with their colleagues in the West African subregion. Indeed, the harvest has been very successful in terms of numbers, but most important, by the high quality of symposia, communications and posters.

The harmonization and integration of health systems as well as the training of Human Resources is the guarantee of good health for the populations of the West African sub-region, in order to achieve the goals of sustainable development.

**Prof Dorothée KINDE-GAZARD**



**WEST AFRICAN JOURNAL OF MEDICINE**



## **Abstracts**

**Collège Ouest Africain des Médecins (COAM)  
West African College of Physicians (WACP)**

**43<sup>ème</sup> Assemblée Générale et Réunion Annuelle Scientifique  
43<sup>rd</sup> Annual General & Scientific Meeting  
Benin 2019**

***Date:*** 3rd – 8th November, 2019  
***Venue:*** Benin  
***Theme:*** Health and Environment in the perspective of the achievement of the SDGs



# WEST AFRICAN JOURNAL OF MEDICINE

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# LECTURES & SYMPOSIUMS

Symposium & Date	Topic	Speaker
<b>Monday 04 Nov 13H00-14H00</b> <b>Mabayoje Annual College Lecture</b>	Human Resources for Health Crisis in West African Sub-region: implication for the achievement of universal health coverage.	<b>Dr C.N Obionu</b> Nigeria
<b>Chair: Dr Eugene Dolopei, Liberia</b> <b>Faculty of Community Health</b>	Ressources humaines pour la gestion des crises sanitaires dans la sous-région ouest africaine : implication pour la couverture médicale universelle.	
<b>Monday 04 Nov 15H30-17H30</b> <b>Training Symposium</b>	Harmonization of curricula for postgraduate training in Francophone West Africa	<b>Dr Abdoulaye Diallo</b> Mali Former Director of the departement of development of human resources at WAHO
<b>Chairs:</b> <b>Dr Kadiri Solomon, Director of Training, WACP</b>	Harmonisation des curricula de formation des spécialistes en Afrique de l'Ouest francophone	Ex-directeur du département du développement des ressources humaines à l'OOAS
	CAMES and Quality Assurance in medical training: challenges and perspectives	<b>Dr Edouard N'goulomilama,</b> Gabon Representative of CAMES
	Le CAMES et l'assurance qualité dans la formation médicale : défis et perspectives	
	The postgraduate medical training programmes in Anglophone West Africa	<b>Dr Roger Mankanjuola,</b> Nigeria Past President of WACP
	Les Programmes de formation médicale du Troisième Cycle dans les Pays Anglophones d'Afrique de l'Ouest	
	Postgraduate medical training in West Africa : Perspectives and Challenges	<b>Dr Angela Okolo,</b> Nigeria
	Formation médicale du Troisième Cycle en Afrique de l'Ouest : Perspectives et défis	
<b>Tuesday 5 Nov 09H00-11H00</b> <b>College Symposium</b>	Disorders of cognition in the elderly-environmental and genetic interactions	<b>Dr Adesola Oggunniyi</b> Nigeria
<b>Chairs: Dr Sani Garko, Nigeria</b> <b>Dr Mamadou M. Ka, Sénégal</b>	Troubles cognitifs chez les personnes âgées : interactions environnementales et génétiques Aging, health and environment	<b>Dr Osi-Ogbu Ogugua</b> Nigeria
<b>Faculty of Internal Medicine</b>	Veillissement, santé et environnement	
	Air pollution and Health Risks	<b>Dr Serge Adè</b> Bénin

Symposium & Date	Topic	Speaker
	Pollution atmosphérique et risques sanitaires	
	Achieving quality in postgraduate education	<b>Dr Audrey Forson</b> Ghana
	Atteindre la qualité dans la formation des spécialistes	
<b>Tuesday 05 Nov 11H30–13H30</b> <b>Symposium (Environment and NCD)</b>	The Environment and Non Communicable Diseases in the context of Sustainable Development Goals : Policy Challenges for Green Economy, Clean Environment and Health Systems Strengthening	<b>Dr BSC Uzochukwu</b> Nigeria
<i>Chairs:</i> <b>Dr Abou Sy, Sénégal,</b> <b>Dr Alfred Yawson,</b> <b>Ghana</b>	L'environnement et les maladies non transmissibles dans le contexte des objectifs du développement durable : défis stratégiques pour l'économie verte, l'environnement propre et le renforcement des systèmes de santé	
	Economic activities, ecosystem and health in Africa: challenges and perspectives	<b>Dr Paul Ayelo</b> Benin
	Activités économiques, écosystème et santé en Afrique : enjeux et perspectives	
	The contribution of the environment to mental disorders	<b>Dr. Sammy Ohene</b> Ghana
	Contribution de l'environnement aux troubles mentaux	
	Light on e-Health rising stars	<b>Local Organizing Committee</b>
	Lumière sur les étoiles montantes du e-Santé	
<b>Wednesday 06 Nov 09H30-11H00</b> <b>Symposium Medical Emergencies</b>	Medical Emergencies : Upscaling training and preparedness	<b>Dr Bernard Nkum</b> Ghana
<i>Chairs:</i> <b>Dr Abel Onunu,</b> <b>Nigeria</b> <b>Dr Francis LALYA,</b> <b>Bénin</b>	Urgences médicales : mise à l'échelle de la formation et de la préparation Paediatric Emergency at the Ola During Children's Hospital	<b>Dr Nellie Bell</b> Sierra Leone
	Urgences pédiatriques à Ola During Children's Hospital Synopsis of Life Support Courses	<b>Dr Opreh Owigho Peter</b> Nigeria
	Synopsis des cours de réanimation cardio-respiratoire	
	Emergency management organisation in West Africa : current situation and perspectives	<b>Dr Martin Chobli</b> Benin
	Organisation de la prise en charge des Urgences en Afrique de l'Ouest : état des lieux et perspectives	

S01

## **HUMAN RESOURCES FOR HEALTH CRISIS IN WEST AFRICAN SUB-REGION: IMPLICATION FOR THE ACHIEVEMENT OF UNIVERSAL HEALTH COVERAGE**

**Ressources humaines pour la gestion des crises sanitaires dans la sous-région ouest africaine : implication pour la couverture médicale universelle**

**Dr C. N. Obionu**  
Nigeria

### **SUMMARY**

Human resource for health (HRH) is the backbone of the health system, the most important resource in health service delivery, and the single most valuable asset within the health system, which can ultimately influence the success or failure of the system. Achieving universal coverage and improved health outcomes depends critically on HRH. The fact that many countries in West African sub-region lack adequate number and quality of HRH raises serious doubts on the achievement of universal health coverage in the sub-region. In fact, many countries in the sub-region face human resources for health crisis, made worse by economic and political crisis across the continent.

A major factor contributing to human resources for health crisis in the West African sub-region is the shortage of health professionals. Most countries in the sub-region face a serious challenge of acute shortage of health professionals and one of the main reasons for the shortage is the migration of skilled health workers to other countries offering better opportunities – the so-called “brain drain”. Also contributing to human resources for health crisis in the sub-region is maldistribution of health professionals. In most, if not all Sub-Saharan African countries, geographical distribution of skilled health workers is imbalanced in favour of urban areas, resulting in acute deficiency of health workers in the rural areas, where majority of the population live and work. There are also significant imbalances in different geographical zones of some countries.

The imbalance in health workers in the sub-region is not only in the total

number and geographical distribution, but also in the skill mix of the available stock of health workers, resulting in low productivity by the health workforce. There is a huge gap in health specialists and shortage of specialized health care workers to cater for the rapidly growing need for specialized health care. This is worsened by the declining number over the years of doctors registering for specialist training with the postgraduate medical colleges in the sub-region - the West African College of Physicians and West African College of Surgeons.

Similar to specialist imbalance is inadequate manpower development in the health system of the countries with its enormous implications, including lower quality and productivity by the health service. Finally, although often taken for granted as a factor in human resources for health crisis is interprofessional conflict. Interprofessional conflict, i.e. conflict among health professionals, is common in many countries in the sub-region and jeopardizes the patients' safety in many ways, as well as causes medical errors due to frequent breakdown in healthcare team interaction. It is a serious challenge, which if not properly tackled, can lead to anarchy in the health sector.

The above challenges seriously compromise the goal of providing effective and quality health care to the people. Unless we address these dimensions of human resources for health crises, we will not be able to achieve universal health coverage in the sub-region. Furthermore, there is need to solicit for support by policy makers for improved funding for health care, in order to address some of the above issues contributing to human resources for health crisis in West African sub-region.

S02

## **HARMONIZATION OF CURRICULA FOR POSTGRADUATE TRAINING IN FRANCOPHONE WEST AFRICA**

**Harmonisation des Curricula de Formation des Spécialistes en Afrique de l'Ouest Francophone**

**Dr Abdoulaye Diallo,**  
Mali

*Former Director of the department of development of human resources at WAHO*

### **RÉSUMÉ**

L'Afrique de l'Ouest Francophone a connu une pénurie de Ressources Humaines de Santé (RHS), notamment de Spécialistes Médicaux (SM) tant en nombre qu'en qualité.

Les causes identifiées par les Experts de l'OOAS, sont essentiellement : une insuffisance de « formations », la fuite massive des « cerveaux », une absence de planification, une inadéquation entre la demande de soins des populations et les RHS disponibles.

Aussi, les SM disponibles étaient concentrés très souvent dans les grandes agglomérations.

Cette problématique a été compliquée par l'existence de curricula obsolètes, inadaptés, avec de grandes disparités d'un pays à un autre et parfois même d'une Université ou Institution de Formation à une autre au sein d'un même pays. La conséquence directe de cela est un cloisonnement des formations, une absence de reconnaissance et d'équivalences des qualifications et diplômes délivrés dans les pays de la sous-région.

En outre, la mobilité des Professionnels, l'exercice des professions médicales étaient limités, en contre-courant des textes fondamentaux de la CEDEAO.

Au même moment, dans l'Espace Anglophone, l'existence des Collèges Ouest Africains (WACP & WACS) qui couvrent tous les 5 pays, avait amoindri lesdites disparités.

Pour pallier ces insuffisances, dès 2004, l'Organisation Ouest Africaine de la Santé (OOAS), en collaboration avec les Institutions de formation de la sous-région et différents partenaires dont le Conseil Africain et Malgache de l'Enseignement Supérieur (CAMES) a planifié et conduit un processus d'harmonisation des curricula de formation des SM avec des Programmes, au format LMD, harmonisés et adaptés, en terme de durées, de dénominations, d'objectifs, de contenus, de conditions d'ouverture, d'admission, de niveaux de recrutement, de méthodes d'enseignement et d'évaluation.

Des Enseignements offerts auparavant en raison de leurs pertinences, en formation continue (en post universitaire) y ont été formellement intégrés dans les curricula, tels que: Management, Rédaction, Recherche Médicales, TIC, Anglais Médical, Ethique-Législation...

La coédition par l'OOAS et le CAMES des résultats a concerné 32 spécialités, dans deux Tomes :

- \* Le Tome I comporte 14 Curricula Harmonisés de Diplômes d'Etudes Spécialisées (D.E.S.), qui remplacent les Certificats d'Etudes Spécialisées (C.E.S): Anatomie Pathologique, Anesthésie-Réanimation, Biologie clinique, Chirurgie générale, Dermatologie-Vénérologie, Gynécologie-Obstétrique, Médecine Interne, Ophtalmologie, Oto-Rhino-Laryngologie, Pédiatrie, Psychiatrie, Radiologie & Imagerie Médicale, Santé Publique, Stomatologie-Chirurgie maxillo-faciale.
- \* Le Tome II avec 18 Curricula Harmonisés de D.E.S. : Cardiologie, Endocrinologie-Métabolisme-Nutrition, Hépato-Gastro-Entérologie, Maladies Infectieuses & Tropicales, Médecine Légale, Médecine Nucléaire, Médecine Physique & de Réadaptation, Médecine du Sport, Néphrologie, Neurologie, Pneumologie, Rhumatologie, Santé au Travail, Chirurgies Pédiatrique, Thoracique & Cardiovasculaire, Neurochirurgie, Orthopédie-Traumatologie, Urologie.

Ce processus d'harmonisation a facilité incontestablement, les équivalences, la reconnaissance des Diplômes & Qualifications et surtout la mise sur le marché du travail d'un nombre remarquable de Spécialistes Médicaux de qualité.

En ce moment, avec la multiplicité de créations de filières de spécialisation, la situation de la sous-région des SM (déficit) reste préoccupante, mais s'est nettement améliorée.

### S03

#### CAMES AND QUALITY ASSURANCE IN MEDICAL TRAINING : CHALLENGES AND PERSPECTIVES

##### Le CAMES et l'Assurance Qualité dans la Formation Médicale : défis et Perspectives

Dr Edouard N'goulomilama, Gabon,  
Representative of CAMES

#### RÉSUMÉ

**Introduction:** Transférer en Afrique la capacité d'évaluation des enseignants chercheurs et chercheurs constituait la mission originelle du CAMES, après sa création par les << PERES FONDATEURS >> en 1968 à Niamey. Ensuite est intervenue une véritable délégation de compétence au CAMES pour penser la coopération et la coordination de l'Enseignement Supérieur (ES) dans les pays membres, en vue de faire réaliser à l'université sa double mission professionnelle et culturelle. Dans le cadre spécifique de la formation en sciences de la santé, ce parcours de service du CAMES s'adosse sur le PRED-AQ, le programme concours d'agrégation en médecine humaine, pharmacie, odontostomatologie, médecine vétérinaire et productions animales (MPOMVPA), les comités consultatifs interafricains (CCI) avec un accompagnement pédagogique et managérial féconds, soutenus par un partenariat bien organisé.

**Argumentaire conceptuel et justification:** La santé dans le monde est en mutation face aux évolutions démographiques, urbaines, épidémiologiques, sociales, économiques, environnementales et technologiques nécessitant une adaptation du système de soins (pharmacothérapies spécifiques) au mapping épidémiologique des régions et pays et particulièrement aux complexes pathogènes s'exprimant avec pré-occupation, à savoir les maladies non transmissibles (HTA, diabète et cancer) et les maladies infectieuses (paludisme, tuberculose et HIV). De fait, elle doit aussi de manière induite sacrifier à l'exigence d'une évolution des compétences professionnelles dans ce secteur. Or, force est de constater pour

s'en inquiéter que la 59<sup>e</sup> Assemblée de l'OMS (25 mai 2006/Genève) a fait le constat d'un déficit en personnel de santé. Pour donner des réponses idoines à ces premiers défis, la demande de contribution des établissements d'ES de l'espace CAMES à l'élaboration et à la mise en oeuvre des politiques de santé, s'impose comme un enjeu majeur.

**Argumentaire méthodologique:** Pour relever ces défis, le CAMES a impulsé le PSDC 2015-2019, comme vision et mode opératoire. Ainsi dans ce cadre, au plan de l'assurance qualité (AQ) et de l'accréditation (qui traduisent de fait l'internationalisation, la comparabilité et les convergences) les offres de gouvernance (y compris numérique), de formation et de pédagogie, de recherche, sont les espaces constitutifs et structurants souvent concernés et impactés. Mais aussi spécifiquement la responsabilité sociale des facultés de médecine. Les programmes CCI et concours d'agrégation en MPOMVPA assurent l'évaluation des Ressources Humaines en Santé (RHS). A cet effet, le CAMES a produit des outils pour stabiliser les critères d'évaluation. On peut citer le guide d'évaluation des enseignants chercheurs et chercheurs (GEEC) au concours de MPOMVPA, les référentiels pour implanter la culture de l'assurance qualité et l'accréditation dans son espace. Une approche partenariale efficace complète ce tableau managérial fécond. De même, en guise de méthodologie prospective, le CAMES a utilement profité de la commémoration de son cinquantenaire en organisant un Colloque international sur l'ESR et innovation à Ouagadougou, le 30 mai 2018, pour construire la vision du CAMES du Futur avec des Institutions d'Enseignement Supérieur et de Recherche (IESR) transformatrices de société.

**Attendus pratiques, expertise, perspectives et commentaires:** Le PSDC, le PRED-AQ, les programmes d'évaluation des enseignants chercheurs et chercheurs en vue de l'obtention des grades, le programme thématique de recherche multi-pays du CAMES en santé ainsi que son réseau d'experts donnent au CAMES toute la légitimité d'une Agence Régionale d'AQ et



d'Accréditation. En définitive ce dispositif d'assurance qualité et d'évaluation qui permet de doter les pays membres de personnes ressources compétentes et compétitives concourt à la reconnaissance internationale de la Marque et du Label CAMES. Et l'ouverture à son espace, à travers un partenariat avec l'OOAS/Centre Régional de Formation des Personnels de Santé (CRFPS) pour la formation des RHS, a produit la standardisation des curricula de formation dans les spécialités médicales, mais aussi l'accréditation des institutions de formation des professionnels de santé (recommandation de la 7<sup>e</sup> Assemblée des Ministres de la Santé de la CEDEAO, 26 juillet 2006/Abuja). Cette dynamique s'est accentuée avec la confrontation des expériences d'accréditation d'institutions anglophones et du CAMES à la réunion du CRFPS/CEDEAO du 15-16 février 2017 à Ouagadougou. Les partenariats avec la CIDMEF et l'OMS pour les centres de préparation pédagogique des candidats au concours de médecine, l'application de la règle 2-2-2 dans la formation pédagogique méritent aussi d'être mis en exergue. L'accompagnement par un référentiel dédié à la création des cellules d'AQ dans les IERS et dans les pays membres, la standardisation et mutualisation des référentiels d'accréditation des formations initiales, spécialisées et continues ainsi que la maîtrise de la mutation du professionnalisme de métier au professionnalisme de l'organisation (conséquence de l'AQ dans l'ES) sont mises en perspective.

**Conclusion :** << S'adapter et s'approprier la culture de l'AQ dans l'ES ou disparaître >>, le CAMES a vite compris que ce slogan n'est ni facultatif, ni excessif, ni un effet de mode.

**Mots clés:** CAMES, WACP, RHS, pédagogie sciences santé, AQ.

#### S04

### THE POSTGRADUATE MEDICAL TRAINING PROGRAMMES IN ANGLOPHONE WEST AFRICA

*Les Programmes de formation médicale du Troisième Cycle dans les Pays Anglophones d'Afrique de l'Ouest*

Dr Roger Makanjuola

### ABSTRACTS

Postgraduate medical training in the Anglophone West African countries commenced in 1971 with the establishment of a Master of Medicine programme in the University of Ibadan, Nigeria. That particular programme gradually petered out. Next came the establishment of postgraduate programmes by an arm of the then Nigeria Medical and Dental Council the mid-1970s. That programme transformed into the National Postgraduate Medical College of Nigeria when that college was established in 1979. This was followed soon after by programmes of the West African College of Physicians (WACP) and West African College of Surgeons (WACS) in 1977 and the Ghana College of Physicians and Surgeons in 2004. Since that time, colleges have also been established in the Gambia, Liberia and Sierra Leone. However, those three programmes have not commenced local training. The national colleges cover all medical specialties. The WACS provides training in surgical specialties, as well as Radiology and Anaesthesiology. The WACP covers medical (physic) specialties as well as Laboratory Medicine.

All the postgraduate colleges operate through a system of faculties of individual specialties. Each faculty has training curricula for the individual specialties. The faculties are responsible for development and revision of the specialty and sub-specialty curricula. Those that have commenced training divide their programmes into two phases, a Part I or Membership programme followed by a Part II or Fellowship programme which confers eligibility for appointment as a consultant. The duration of the first, Part I, phase is a minimum of either two or three years and the final, part II phase is two years. This system is illustrated in more detail by the programme of the West African College of Physicians.

The West African College of Physicians (WACP) was established in 1975 and initially involved the five Anglophone West African countries – The Gambia, Ghana, Liberia, Nigeria and Sierra Leone. The postgraduate medical training programme of the College commenced in 1977. Initially the

programme involved a minimum of four years' training leading to a single exit qualification, the Fellowship of the College, which provided eligibility for appointment as a consultant. There were two stages to the programme, with a Part I examination taken after a minimum of two years and the final Part II Fellowship programme taken after a minimum of a further two years. In 1997 the Part I examination was re-designated as the Membership examination. The Membership subsequently became designated as an exit qualification that conferred eligibility to practice in the respective specialty at a level below that of a consultant.

The College has six faculties with programmes in their respective specialties:

- Community Health
- Family Medicine
- Internal Medicine
- Paediatrics
- Psychiatry

Each has its own curriculum, which is revised at a minimum of every five years.

Entry requirements:

- The basic medical degree of the individual's country
- Full registration with the country's medical registration body
- A pass in the Primary Examination – covering the basic medical sciences relevant to the particular faculty's requirements.

The Training Programme:

The College prescribes the curriculum for each specialty programme. The actual training takes place in health institutions accredited for the purpose by the College following inspection by the respective faculty. The trainee doctors, called residents, are employed by the training institution and provide service to the institution while being trained. They are initially employed as Junior Residents (Senior House Officer and then Registrar). After passing the Membership examination they are eligible for promotion to Senior Resident (Senior Registrar).

The training institutions are largely responsible for the training of the resident doctors. The College complements this training through the provision of Update

and Revision courses and workshops. The College also operates a system of training coordinators in each country and each institution.

*INTEGRATION WITH THE FRANCOPHONE AND LUSOPHONE WEST AFRICAN TRAINING PROGRAMMES*

A major objective of the WACP is to become a truly West African organisation and the College has been pursuing this objective with vigour, particularly over the past two decades. We have achieved much success, but there is still a long way to go. One area in which there has been very limited progress is the integration of our training programmes with Francophone and Lusophone programmes. Arguably, there is unofficial mutual recognition of the equivalence of the Francophone DES qualification and the College's Fellowship qualification. However, the ultimate vision of the College is of integration of the various programmes so that doctors can take either one or both programmes in any part of the sub-region and be eligible to practice throughout the sub-region with either qualification. Our sister college, the West African College of Surgeons, has achieved this in part with participating Francophone institutions. The last five Strategic Plans of the College have included elaborate proposals on achieving this integration. One of the initial strategies adopted by the College is to invite Francophone and Lusophone Fellows to participate in the College's examinations. Unfortunately, there has not been any reciprocity and this one-sided arrangement has been criticised by some Anglophone Fellows.

The West African Health Organisation has held extensive consultations on harmonisation of postgraduate medical education in the sub-region. While harmonisation of the training curricula across the Francophone countries and Guinea Bissau was achieved, there was no significant achievement in terms of harmonisation and recognition of equivalence between Anglophone and the other two language areas. What did emerge was that the curricula were very similar, though the administration of the programmes was not.

**Comparison of the DES and Anglophone programmes:**

	DES	WACP Fellowship
Curriculum	<b>Content very similar</b>	
Duration of training	Four years	Four years
Locations of training	Health institutions	Health institutions
Training by	Individual Universities	Health institutions,
complemented by the Colleges		
Curriculum/Examinations/Certification by:	Individual Universities	WACP

Thus, we have a situation whereby the knowledge and skills on both sides are equivalent, yet there is no official recognition by the two language groups. In addressing the issue of integration, the first step will be to decide whether the process is worthwhile and whether there is enough commitment to the task. Political considerations are likely to be a factor in this.

The practicalities of integration of programmes by the WACP and the Francophone and Lusophone countries will be addressed further in the presentation.

**RÉSUMÉ**

La formation médicale de troisième cycle dans les pays Anglophones d'Afrique de l'Ouest a commencé en 1971 avec la création d'un Programme de Maîtrise en Médecine à l'Université d'Ibadan, au Nigéria. Ce programme en particulier s'est progressivement évanoui. Puis, on avait eu la création des programmes de troisième cycle par une section de Conseil Médical et Dentaire du Nigéria à l'époque au milieu dans les années 1970. Ce programme a métamorphosé à la création de National Postgraduate Medical Collège du Nigéria, crée en 1979. Effectivement, les programmes de Collège Ouest Africain des Médecins (COAM), et du Collège Ouest Africain des Chirurgiens ont été créés en 1976/1977, le Ghana College of Physicians et Surgeons en 2004 et le Liberia Postgraduate Medical College en 2014. Depuis, des collèges ont été créés en Gambie, et en Sierra Leone. Cependant, les programmes n'ont pas commencé la formation locale. Les collèges nationaux couvrent toutes les spécialités médicales. Le COAC offre une formation en spécialités chirurgicales ainsi qu'en

radiologie et en anesthésiologie. Le COAM couvre les spécialités médicales, physiques, ainsi que la médecine de laboratoire.

Tous les collèges de troisième cycle fonctionnent par un système de facultés de spécialités individuelles. Chaque faculté a des programmes de formation pour les spécialités individuelles. Les facultés sont responsables de l'élaboration et de la révision des programmes spécialisés et sous-spécialisés. Ceux qui ont commencé la formation divisent leurs programmes en deux phases : un programme de la première section, le Part I, ou Programme de Membership suivi d'un programme de Fellowship ou de la deuxième partie, qui confère l'éligibilité à la nomination en tant que Chef de Service, consultant. La durée de la première phase, Première partie est d'au moins deux ou trois ans et la phase finale, la deuxième partie, Part II, est de deux ans. Ce système est illustré par le programme du Collège Ouest Africain des Médecins.

Le Collège Ouest Africain des Médecins (COAM), a été créé en 1975 et avait d'abord impliqué les cinq pays anglophones d'Afrique de l'Ouest comme la Gambie, le Ghana, le Libéria, le Nigéria et la Sierra Leone. Le programme de formation médicale de troisième cycle du Collège a débuté en 1977. D'abord, le programme comportait une formation d'au moins quatre ans menant à une seule qualification de sortie, le Fellowship du Collège qui offrait l'admissibilité à une nomination en tant que chef de service, consultant. Le programme comprend deux étapes, avec un examen après la fin de la première partie après au moins deux ans et le programme final de Fellowship de la deuxième partie Part II, après au moins deux années supplémentaires. En 1997,

## Comparaison des programmes DES et ceux des anglophones

	DES	Fellowship Du COAM
Programme d'études	<b>Contenu très similaire</b>	
Durée de la formation	Quatre ans	Quatre ans
Lieu de formation	Les établissements de santé	Les établissements de santé
Formation par	Universités individuelles	Les établissements de santé, complétés par les collèges
Programme d'études /Examens/ Authentification par:	Universités individuelles	Les collèges

le programme a été divisé en deux, l'examen de la première partie ayant été redésignée comme un diplôme de sortie qui a conféré l'admissibilité à la pratique dans la spécialisation respective, un niveau inférieur à celui d'un chef de service, consultant.

Il y a six facultés dans le Collège avec des programmes dans leurs spécialités respectives :

- Santé publique
- Médecine de la famille
- Médecine interne
- Médecine de laboratoire
- Pédiatrie
- Psychiatrie

Chacun a son propre programme d'études, qui est révisé au moins tous les cinq ans.

Critères :

- Le diplôme médical de base du pays de l'individu
- Enregistrement complet auprès de l'organisme d'enregistrement médical du pays.
- Un laissez-passer à l'examen Primaire, couvrant les sciences médicales de base pertinentes aux exigences du critère des facultés.

L'Organisation de la santé de l'Afrique de l'Ouest a tenu des vastes consultations sur l'harmonisation de l'enseignement médical de troisième cycle dans la sous-région. Bien que l'harmonisation des programmes de formation dans les pays francophones ait été réalisée, il n'y a pas eu de réalisation significative en termes d'harmonisation et de reconnaissance de l'équivalence entre les pays anglophones et francophones. Ce qui est ressorti, c'est que les programmes d'études étaient très similaires, bien que l'administration des programmes ne l'ait pas été.

Ainsi, nous nous trouvons dans une situation où les connaissances et les compétences des trois côtés sont équivalentes, mais il n'y a pas de reconnaissance officielle par les trois groupes linguistiques. En abordant la question de l'intégration, la première étape consistera à décider si le processus en vaut la peine et s'il y a suffisamment d'engagement à l'égard de la tâche. Les considérations politiques sont susceptibles d'être un facteur à cet égard.

Les aspects pratiques de l'intégration des programmes par les pays Anglophones, Francophones et Lusophones seront abordés plus en détail dans la présentation.

### S05 POSTGRADUATE MEDICAL TRAINING IN WEST AFRICA: PERSPECTIVES AND CHALLENGES Formation médicale du troisième cycle en Afrique de l'Ouest : perspectives et défis

**Dr Angela Okolo,**  
Nigeria

#### ABSTRACT

**Objective:** To Examine the perspectives and challenges and propose ways of accelerating the current integration process.

**Background:** Postgraduate training in the medical specialties had existed both in the Anglophone and Francophone countries of West Africa since the mid-1970s. They were conducted under multiple forms and modalities particularly in the francophone countries. The essence of the Medical PG training was to establish a corps of specialists to provide requisite specialized quality care in the region to the populations of this

region irrespective of their place of residence.

**Methods:** A descriptive approach has been utilized. This involved the use of oral interviews, examinations of existing documents of the colleges and personal recall.

**The Perspectives:** In the 5 Anglophone countries the West African Postgraduate Medical College was the major certification body responsible for the prescription of Syllabus, standards and accreditation of training institutions in Anglophone West Africa whilst the training was conducted in the accredited tertiary centers. The National Postgraduate Medical College of Nigeria whose organization and functions were similar to that of the WAPMC was also established in this era. Trainees who were registered into the training program of the tertiary centers were salaried employees of the Ministry of Health. They were trained in their respective countries but were examined for certification in Ibadan, Nigeria. The duration of this training was supposed to be 4 to 5 years. However, this was not monitored so trainees could spend as long as they could until they passed the exams. In this system the major actor was the Ministry of health (MOH). The trainers were employees of the ministry of Education (MOE).

In the Francophone countries, the main countries who offered PG training in the same epoch were Senegal and Cote d'Ivoire in the very beginnings. Each training institution prescribed her syllabus, standards and duration of the training. The training were run as University programs. The trainees who were self sponsored registered with the universities' medical schools. Eventually the respective countries developed their training programs. The evaluation of trainees was conducted by each training center. The exit diploma was Certificate of specialist studies (CES). This was the specialist professional pathway. In this system the major policy maker involved was the ministry of Higher education (MOHE). There was the CAMES, a body that regulated and evaluated the academic pathway of professional progression for the University teachers. This CAMES an agency of the MOHE regulated the teachers / Trainers.

The 1990s marked the era of the Francophone harmonization of PG training program in Content and duration for 4years with the ultimate evolution to the Diplome d'etudes special (DES). The West African Health Organisation (WAHO) led this process. The next step in the process arrived in the 2014 when again WAHO harmonized the training for the West African College of Physicians and all the Anglophone National colleges with the Francophone. System for Accreditation of training programs was also introduced to the francophone countries. All francophone countries have existing postgraduate training programs. The specialty training in Family Medicine is a new area in very few francophone PG training Programmes. More recently in the 2010s, there is a dwindling number of enrolment of trainees into the program. This is because of migration to developed countries. The trainers are also involved in this drift and migration to greener pastures.

The major limitations are that the number of specialists being trained to provide quality care in the region remains low. This is more pronounced in the Francophone countries. The number of specialty areas covered differ between anglophone and francophone countries. **Conclusion:** There is insufficient number of medical specialist in the subregion. The WACP has evolved into a unifying force for training across West Africa. There are still gaps in the system. Advocacy is needed to convince regional decision makers of the need for change in the policy for recruitment into the training programs, retention and deployment of trainees at completion of training. This will ensure sustainability and availability of the needed competences and capacity to deliver quality specialized care. The college will work with WAHO in this direction.

#### S06

### DISORDERS OF COGNITION IN THE ELDERLY-ENVIRONMENTAL AND GENETIC INTERACTIONS

Troubles cognitifs chez les personnes âgées : interactions environnementales et génétiques

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Nigeria

#### ABSTRACT

**Background:** Disorders of cognition are common in the elderly and the most severe form is dementia which is diagnosed when there is accompanying functional impairment. With the growing population of the elderly, cognitive disorders are predicted to reach epidemic proportions. It is therefore essential to identify environmental factors that increase the risk of developing such disorders for appropriate intervention.

**Aim:** To show the changing association of apolipoprotein E (APOE) with Alzheimer's disease (AD) in the Yoruba and identify other environmental risk factors in sub-Saharan Africa.

**Methodology:** Data was derived from the Indianapolis-Ibadan dementia cross-cultural study of the burden and risk factors of dementia in African Americans and Yoruba. Cognitive assessment was done using the Community Screening Interview for Dementia in over 4000 individuals aged 65 years and over. Diagnosis of dementia was by consensus. Important sociodemographic variables were recorded, and environmental exposures determined. Lipid levels were determined and APOE genotyping was done on DNA samples using PCR. Other environmental risk factors for dementia obtained from other studies in Africa were extracted from publications in PUBMED MEDLINE.

**Results:** The respective prevalence rates of dementia (AD) were significantly lower in the Yoruba when compared with African Americans 2.29% vs 8.24% (1.41% vs. 6.24%). Interaction was observed between APOE e4 allele and Cholesterol. In subsequent analysis, APOE increased the risk of AD in the Yoruba. Other environmental risk factors were vascular, low education and dietary deficiencies.

**Conclusion:** APOE has emerged as a significant risk factor for dementia in the Yoruba. Control of vascular factors can contribute to lowering dementia prevalence. Other targets for prevention will be discussed.

**Acknowledgements:** Grant NIA RO1 AG09956 and GCC Grants 0086-04 & 0820-05.

#### S07 AGING, HEALTH AND ENVIRONMENT

### Veillissement, santé et environnement

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#### ABSTRACT

Ageing is one of the top three concerns of the 21st century. As the world ages, there are peculiar challenges to be addressed including the effect of environment on the health and wellbeing of older persons. Health and well-being are determined not only by our genes and personal characteristics but also by the physical and social environments in which we live our lives. With the current rise in humanitarian crisis around the world and especially on the African continent, from wars, political instability, natural disasters such as flooding (with displacement of individuals), and violent practices such as kidnappings and banditry, the older persons are particularly vulnerable because of the interplay of reduced intrinsic capacity, the burden of multi-morbidity and disability plus inequity in provision of health and social services. They are more likely to have poorer health outcomes, face issues of abuse and neglect and sometimes lose their lives.

This work relied on a desk review of the literature on the effect of environment on the health and well being of older persons globally and particularly in Africa. It is often assumed that the impact of ecological or climatic changes affect all portions of population equally without specific look at the older adult cohort. The WHO (world health organisation) through the Age friendly environments programme has provided a guide for ensuring that older persons enjoy good health throughout the life course, focusing on the social and physical environmental factors that contribute to active and healthy ageing. This programme will be reviewed in details in this paper.

Particular attention needs to be paid to older adults as the world grapples with environmental changes such as global warming, pollution, inadequate water, deforestation and natural disasters.

There is a need to advocate for Age friendliness, focusing on the needs of older persons, especially strategies that build resilience in them for climate change, in designing and planning greener cities around the world.

The older adults require education to enable them cope with environmental changes, use of technology to avoid poor outcomes and governments must deploy Age friendly strategies while developing policies to address issues of environment.

**Keywords:** Environment, age-friendliness, active ageing

S08

### AIR POLLUTION AND HEALTH RISKS Pollution atmosphérique et risques sanitaires

Dr Serge Adè  
Bénin

#### RÉSUMÉ

La pollution à l'intérieur des habitations peut avoir de nombreuses répercussions sur la santé de l'individu. Hormis les agents biologiques, les substances physico-chimiques peuvent entraîner de nombreux troubles à court moyen et long terme, souvent peu connus des professionnels de santé. Ainsi, des quantités de particules sont libérées dans l'air intérieur lors des activités de combustion et entraînent une inflammation des voies respiratoires. Les particules de taille inférieure à 0,1 $\mu$ m peuvent passer dans la circulation générale. De nombreux gaz sont issus de la combustion incomplète d'une matière combustible. Le monoxyde de carbone (CO), par la formation de la carboxyhémoglobine, peut entraîner une hypoxie parfois fatale en cas d'intoxication grave, ou pouvant laisser de graves séquelles neurologiques et cardiaques. Le dioxyde de soufre (SO<sub>2</sub>) peut irriter les voies respiratoires, augmenter la production de mucus et entraîner un bronchospasme. Le dioxyde d'azote (NO<sub>2</sub>), associé à l'utilisation d'appareils à gaz (cuisine et chauffage) et à la combustion de la biomasse (bois, charbon), peut entraîner une inflammation des voies respiratoires, une bronchoconstriction, une diminution des

défenses immunitaires, une plus grande susceptibilité aux infections et réactions allergiques. Les composés organiques volatils (COV) sont nombreux. Il s'agit par exemple du formaldéhyde, du benzène, du toluène, de l'éthylbenzène, des xylènes, des hydrocarbures aromatiques polycycliques (HAP). Ils sont contenus dans de nombreux matériaux utilisés dans l'aménagement et la décoration comme les peintures, les vernis, les colles, les revêtements des sols et des murs, les produits d'entretien, etc. La fumée du tabac est la principale source de benzène à l'intérieur des maisons. En plus du fait qu'ils peuvent entraîner une gêne olfactive, des irritations diverses au site du contact, une diminution des capacités respiratoires, ils sont mutagènes et cancérigènes. Ils peuvent à l'origine d'une pancytopenie. La contamination peut se faire par voie inhalée, par ingestion ou par voie cutanée. L'ozone, un autre gaz qui peut être retrouvé à l'intérieur des domiciles et entraîner des irritations du nez, de la gorge, des céphalées, des douleurs thoraciques. Le radon, dont la présence dans l'air intérieur est favorisée par les mauvaises conditions de ventilation et les défauts d'étanchéité, a été reconnu comme carcinogène du poumon. Par ailleurs, la pollution à l'intérieur des habitations est accrue par celle de l'air extérieur qui y pénètre. Même si l'ensemble de la population est concernée par la pollution de l'air, certains sujets sont plus à risque, comme les femmes enceintes, les jeunes enfants, des personnes âgées ou celles ayant une tare respiratoire ou cardiaque. La lutte contre la pollution intérieure nécessite une ventilation suffisante, l'élimination de la poussière domestique, l'entretien des appareils domestiques, la limitation de l'exposition aux COV. La pollution à l'intérieur des habitations peut avoir de nombreuses répercussions sur la santé de l'individu. Hormis les agents biologiques, les substances physico-chimiques peuvent entraîner de nombreux troubles à court moyen et long terme, souvent peu connus des professionnels de santé. Ainsi, des quantités de particules sont libérées dans l'air intérieur lors des activités de combustion et entraînent une inflammation des voies

respiratoires. Les particules de taille inférieure à 0,1 $\mu$ m peuvent passer dans la circulation générale. De nombreux gaz sont issus de la combustion incomplète d'une matière combustible. Le monoxyde de carbone (CO), par la formation de la carboxyhémoglobine, peut entraîner une hypoxie parfois fatale en cas d'intoxication grave, ou pouvant laisser de graves séquelles neurologiques et cardiaques. Le dioxyde de soufre (SO<sub>2</sub>) peut irriter les voies respiratoires, augmenter la production de mucus et entraîner un bronchospasme. Le dioxyde d'azote (NO<sub>2</sub>), associé à l'utilisation d'appareils à gaz (cuisine et chauffage) et à la combustion de la biomasse (bois, charbon), peut entraîner une inflammation des voies respiratoires, une bronchoconstriction, une diminution des défenses immunitaires, une plus grande susceptibilité aux infections et réactions allergiques. Les composés organiques volatils (COV) sont nombreux. Il s'agit par exemple du formaldéhyde, du benzène, du toluène, de l'éthylbenzène, des xylènes, des hydrocarbures aromatiques polycycliques (HAP). Ils sont contenus dans de nombreux matériaux utilisés dans l'aménagement et la décoration comme les peintures, les vernis, les colles, les revêtements des sols et des murs, les produits d'entretien, etc. La fumée du tabac est la principale source de benzène à l'intérieur des maisons. En plus du fait qu'ils peuvent entraîner une gêne olfactive, des irritations diverses au site du contact, une diminution des capacités respiratoires, ils sont mutagènes et cancérigènes. Ils peuvent à l'origine d'une pancytopenie. La contamination peut se faire par voie inhalée, par ingestion ou par voie cutanée. L'ozone, un autre gaz qui peut être retrouvé à l'intérieur des domiciles et entraîner des irritations du nez, de la gorge, des céphalées, des douleurs thoraciques. Le radon, dont la présence dans l'air intérieur est favorisée par les mauvaises conditions de ventilation et les défauts d'étanchéité, a été reconnu comme carcinogène du poumon. Par ailleurs, la pollution à l'intérieur des habitations est accrue par celle de l'air extérieur qui y pénètre. Même si l'ensemble de la population est concernée par la pollution de l'air,

certain sujets sont plus à risque, comme les femmes enceintes, les jeunes enfants, des personnes âgées ou celles ayant une tare respiratoire ou cardiaque. La lutte contre la pollution intérieure nécessite une ventilation suffisante, l'élimination de la poussière domestique, l'entretien des appareils domestiques, la limitation de l'exposition aux COV.

**S09**

**ACHIEVING QUALITY RESIDENCY TRAINING IN THE WEST AFRICAN SUB-REGION**

**Atteindre la qualité dans la formation des spécialistes en Afrique de l'ouest**

**Dr Audrey Forson**  
Ghana

**ABSTRACT**

The main goal of postgraduate training in the subregion has largely been to populate our regional, district and smaller hospitals with specialists, to enable us serve our people, and for a more equitable distribution of specialist services to all pockets of the population. I find that about 11 of the Sustainable Development Goals (SDGs) have relevance to medicine and/or education, specifically medical education, in our quest to make quality postgraduate medical education sustainable.

The path we take from completing housemanship to becoming fellows of a college can be short for some or can be quite long, exceeding 10 years. This may vary from country to country and differs in different regions of the world. My interest was aroused in this aspect of postgraduate medical training when I was put on a committee in the Ghana College of Physicians and Surgeons to determine what qualifications were considered equivalent to our fellowship, and who could or could not be offered fellowship-by-election.

We as medical specialists and consultants may belong to one of the poorest regions of the world, however we expect our specialists to compare favourably with the best in the world, to serve our people and to help our governments and people achieve the SDGs. Therefore we must preserve, protect and improve on the quality we have, and in spite of inadequate resources (poverty) show 'attitude' and 'class'.

The 17 Sustainable Development Goals

1. End poverty in all its forms everywhere
2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
3. Ensure healthy lives and promote wellbeing for all at all ages
4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
5. Achieve gender equality and empower all women and girls
6. Ensure availability and sustainable management of water and sanitation for all
8. Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all
9. Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation
10. Reduce inequality within and among countries
11. Make cities and human settlements inclusive, safe, resilient and sustainable .....
16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
17. Strengthen the means of implementation and revitalize the global partnership for sustainable development.

**S10**

**THE ENVIRONMENT AND NON-COMMUNICABLE DISEASES IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT GOALS: POLICY CHALLENGES FOR GREEN ECONOMY, CLEAN ENVIRONMENT AND HEALTH SYSTEMS STRENGTHENING**

**L'environnement et les maladies non transmissibles dans le contexte des objectifs du développement durable: défis stratégiques pour l'économie verte, l'environnement propre et le renforcement des systèmes de santé**

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**ABSTRACT**

The environment is a source of sustenance for more than 50% of the economically active high and increasing population of Africans as they largely get their source of livelihood from agriculture, animal husbandry, fishing, hunting, foraging, and forestry. Common, preventable risk factors, such as physical inactivity, unhealthy diet and the harmful use of alcohol and tobacco consumption, have long been recognized risks to health. What is less well known is that environmental factors are also the main causes of non-communicable diseases (NCDs) especially in developing countries like West African countries. For example, outdoor and household air pollution together caused more deaths from cardiovascular diseases, chronic respiratory diseases, and lung cancer. Other important environmental risks include second-hand tobacco smoke, exposure to chemicals, radiation, and noise, and occupational risks. This puts an increasing strain on the West African health systems and the prevention and management of these diseases have become a litmus test for health systems strengthening in the sub-region.

Reducing environmental health risks from conception onwards would greatly reduce the vast and growing burden of NCDs, and it would be a crucial step in progressing towards achieving the Sustainable Development Goals (SDGs). Green economy, "going green" and clean environment present a viable option to reducing health risks and hence NCDs. Green Economy which is a system of economic activities related to the production, distribution and consumption of goods and services that result in improved human well-being over the long term, while not exposing future generations to significant environmental risks or ecological scarcities has the purpose of achieving harmony between economy and environment and ensure free, safe and sustainable environment.

For example, climate-friendly investments in key economic sectors could prevent significant obesity-related diseases; cardiovascular and respiratory diseases including asthmas and allergies and traffic injuries.

However, achieving these presents with some policy challenges including among others rapid pace of urbanisation, lack of adequate data and information, inability to apply numerous instruments for enabling green cities in a tailored, context-specific way, fragmented environmental policies which are formulated without contributions from informed masses, nor based on nationally generated baseline data, lack of implementation and monitoring policies crippled by widening and deepening corruption and lack of political commitment to NCD control and health systems strengthening.

Governments in the West African sub-region should, therefore, be fully involved in the implementation of the green growth policy strategy, the enforcement of existing legislation on sustainable environment, form new alliance of policymakers in climate, health and key sectors such as housing and transport, introduction of policies, regulations and incentives to promote green economy and clean environment and show political commitment to health systems strengthening as this is the key to achieving the 9th global NCD target by 2025.

### S11

#### **ECONOMIC ACTIVITIES, ECOSYSTEM AND HEALTH IN AFRICA: CHALLENGES AND PERSPECTIVES** **Activités économiques, écosystème et santé en Afrique : enjeux et perspectives**

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#### **RÉSUMÉ**

La dégradation de la relation écosystème-santé constitue une

manifestation considérable de l'impact accéléré et irrévocable des activités humaines sur la nature. Comment reconstruire l'équilibre écologique, assurer la sécurité alimentaire, la gestion des ressources énergétiques, minérales et maritimes, la qualité de l'air et de l'eau, la relation humanité-biosphère, promouvoir la santé et le développement durable ? Ce sont là les diverses préoccupations actuelles à l'échelle mondiale. Les enjeux de la relation écosystème et activités économiques sont énormes. Il s'agit notamment de la détérioration du sol, le changement climatique, la pollution maritime et atmosphérique, les risques chimiques, nucléaires et ceux liés à la manipulation génétique, la réduction et l'extinction des ressources et de la biodiversité. L'Afrique se trouve particulièrement concernée par cette problématique de l'écosystème en rapport avec les activités économiques. Les dépotoirs sauvages des ordures en plein coeur des grandes villes, les caniveaux ouverts remplis de déchets puants, le mélange de toutes sortes de déchets sur les berges des lacs, lagunes et rivières, la densité des fumées émises par les véhicules totalement hors d'usage, les nombreux cas d'intoxications à forte létalité liés à la libre circulation des produits chimiques dangereux, la présence paisible des usines polluantes en pleine ville, les étalages des produits pétroliers dans toutes les rues et même dans les ménages comme c'est le cas au Bénin, sont autant de défis voire des menaces pour l'environnement et la santé. Il s'avère donc impératif de réveiller l'attention populaire, susciter l'engagement et la volonté politique en vue de la gestion alternative et durable de l'écosystème.  
**Mots-clés:** Economie, écosystème, santé, Afrique.

### S12

#### **THE CONTRIBUTION OF THE ENVIRONMENT TO MENTAL DISORDERS**

#### **Contribution de l'environnement aux troubles mentaux**

**Dr. Sammy Ohene**  
Ghana

### **ABSTRACT**

Mental health is inextricably linked with overall health and wellbeing. Complex interactions between genetic, psychological and social factors are known to be important determinants of mental health. These factors are greatly impacted by environmental influences, natural social or man-made. Environmental exposure may trigger mental disorders or act as protective factors for stress reduction or recovery. Mental disorders constitute 13% of the global burden of disease estimated by DALYs, (Vigo *et al*, 2016). Two out of seven adults are believed to be living with mental disorders which by their nature can have devastating effects on individuals quality of life and health systems as a whole. It is almost certain that mental disorders will continue to be the cause of a large proportion of the disease burden in all countries. Resource poor countries will benefit greatly from any actions that can reduce the impact of mental disorders. The presentation will look at the available literature and the science behind environmental impact on Mental health and attempt to suggest ways in which we can leverage this to help improve mental health in West Africa.

### S13

#### **LIGHT ON e-HEALTH RISING STARS** **Lumière sur les étoiles montantes du e-Santé**

**LOC**  
Benin

#### **E-Health raising star N°1:** **HEMATOPLUS**

HEMATOPLUS is a telemedicine plat-form. Its main mission is to provide remotely health workers (Doctors, Nurses, Midwives, Laboratory Technicians) with the expertise they need for diagnosis and correct management of common hematological diseases. HEMATOPLUS also offers an E-learning interface in hematology (Videos) and a secure space for the organization of Consensus Meetings "Pluridisciplinaire online. Learn more on [www.hematoplus.com](http://www.hematoplus.com)

HEMATOPLUS est une plateforme de télémédecine. Sa principale mission est



de fournir à distance, aux agents de santé de première ligne (Médecins, Infirmiers, Sage-femme, Techniciens de laboratoire) l'expertise dont ils ont besoin pour le diagnostic et la prise en charge correcte des pathologies hématologiques courantes. HEMATOPLUS offre également une interface de E-learning en hématologie (Vidéos) et un espace sécurisé pour l'organisation de Réunion Consensuelle "Pluridisciplinaire en ligne. En savoir plus sur [www.hematoplus.com](http://www.hematoplus.com)

**E-Health raising star N°2 : REMA**  
Powered by REMA Medical Technologies, the Exchange Network of Africa Physician (REMA) is a remote medical collaboration service dedicated to physicians practicing in Africa. Indeed, it is a mobile application networking all African doctors and allows them to publish, discuss, resolve patient cases and collaborate in real time whatever the distance, in order to take better medical decisions and thus save more lives. REMA is used today by more than 5000 doctors coming mainly from West African countries, and wants to be the largest doctor community in Africa. Learn more on [www.remaapp.com](http://www.remaapp.com)

Propulsé par REMA Medical Technologies, le Réseau d'Echange entre Médecins d'Afrique (REMA) est un service de collaboration médicale à distance dédié aux médecins exerçant en Afrique. Il s'agit en effet, d'une application mobile mettant en réseau tous les médecins d'Afrique et qui leur permet de publier, discuter, résoudre des cas de patients et de collaborer en temps réel quel que soit la distance, afin de prendre de meilleures décisions et ainsi sauver plus de vies. REMA est utilisé aujourd'hui par plus de 5000 médecins venant principalement des pays de l'Afrique de l'Ouest, et se veut être la plus grande communauté de médecin d'Afrique. En savoir plus sur [www.remaapp.com](http://www.remaapp.com)

**E-Health raising star N°3 :**  
**goMediCAL**, the online health service that brings you closer to your doctor  
Email: [hello@gomedical.io](mailto:hello@gomedical.io)

**goMediCAL** is a health service designed to facilitate early access to health care for populations. Materialized by a mobile platform for patients and doctors, and web for health facilities, it allows users to access a directory of

doctors and geolocated clinics, to book and be reminded of a medical appointment with more than 300 health professionals for oneself or for a relative, to share their health record with the doctor, and to pay for the consultation for themselves or for a third party remotely.

Today, goMediCAL has attracted more than 13,000 users with its tripartite offer that brings patients and doctors closer together. Learn more on [www.gomedical.io](http://www.gomedical.io)

**goMediCAL** est un service de santé destiné à faciliter l'accès précoce des populations aux soins de santé. Matérialisé par une plateforme mobile pour le patient et le médecin, et web pour les formations sanitaires, il permet aux utilisateurs d'accéder à un répertoire de médecins et de cliniques géolocalisés, de prendre et de se faire rappeler un rendez-vous médical auprès de plus de 300 professionnels de la santé pour soi ou pour un proche, de partager son carnet de santé avec le médecin, et de payer la consultation pour soi ou pour un tiers à distance.

Aujourd'hui, goMediCAL a séduit plus de 13000 utilisateurs avec son offre tripartite qui rapproche patients et médecins. En savoir plus sur [www.gomedical.io](http://www.gomedical.io)

#### S14 MEDICAL EMERGENCIES: UP- SCALING TRAINING AND PRE- PAREDNESS

**Urgences médicales: mise à l'échelle  
de la formation et de la préparation**

**Dr Bernard Nkum**  
Ghana

#### ABSTRACT

Humankind will forever be vulnerable to medical emergencies. This permanent threat demands permanent readiness.

We can achieve this security through training/recruitment of appropriate specialists and election of "eligible" fellows.

We could put in place appropriate legal frameworks and simulations. Other measures include vigilance and ensuring institutional vigilance does not elapse.

Countries are expected to prevent,

detect and respond to public health emergencies including disease outbreaks. When we invest in laboratories, surveillance systems and Human Resources, the benefits spill over into other areas of disease prevention.

How much money would it take to help countries with weak economies prepare for the next inevitable pandemic? Robust core systems in 140 developing countries would require \$3.4 billions a year, which is less than 1 percent of the \$373 billions of public spending on health in developing countries.

#### S15 PAEDIATRIC EMERGENCY AT THE OLA DURING CHILDREN'S HOSPITAL

**Urgences pédiatriques à  
Ola during Children's Hospital**

**Dr Nellie Bell**  
Sierra Leone

#### ABSTRACT

Sierra Leone has one of the highest infant and under five mortality rates in the world and in Sub-Saharan Africa. The World Health Organisation has reported that children admitted to hospital often die within 24 hours of admission. It is a fact that many of these deaths could be prevented if very sick children are identified soon after their arrival in the health facility, and treatment is started immediately in a well-structured and equipped Emergency room.

The only paediatric tertiary hospital in the country (Ola During Children's Hospital; ODCH) was, as was with many other hospitals and clinics in Sierra Leone, badly hit by the Ebola epidemic in 2014/2015. The hospital was in a crucial state and needed urgent reviving, both in the area of specialised human resources, structural refurbishment and financial input in the procurement of drugs and consumables.

This presentation will contain a case study of the steps of developing the emergency room at the Ola During Children's Hospital. In 2015 a study was conducted, just after the end of the Ebola outbreak, which showed that, due to a major lack in specialised medical personnel, and inadequate infrastructure

for emergency care, there was an urgent need for intervention at the entry point of the hospital. The problems include the failure to triage patients and large time-to-treatment rates of the children presenting with emergency signs. Also, urgent refurbishment of the structure of the emergency room needed to be undertaken.

After intervention in the area of basic, but effective triaging, assessment and management of the patients and modification to the infrastructure in 2016, there was marked improvement of the statistics. In 2019, the most recent, but simple step occurred. This entailed improving on the infrastructure of the emergency unit and hence improving on patient care and patient and healthcare worker satisfaction. Prospects for the future will also be presented.

This and more are supportive of our quest in making the Ola Daring Children's Hospital a teaching hospital of high standard.

## S16

### SYNOPSIS OF LIFE SUPPORT COURSES

#### Synopsis des cours de réanimation cardio-respiratoire

Dr Opreh Owigho Peter  
Nigeria

#### ABSTRACT

Anecdotally, morbidity and mortality attributable to heart attack, brain attack and sudden cardiac arrest have reached alarming proportions in the West African subregion. This is not unconnected to increasing adaptation of Western lifestyle.

If this trend is to be stemmed, a paradigm shift in the healthcare delivery systems has to be instituted.

Thus, Life Support Courses which constitute an important aspect of Emergency Medicine need urgent commensurate emphasis.

Overtime, several Life Support Courses have been developed and when implemented appropriately lives have been saved. They include but not limited to the following:

1. Basic Life Support (BLS) – the foundation for saving lives following cardiac arrest. It focuses

on cognitive and psychomotor skills, especially high-quality Cardiopulmonary Resuscitation (CPR) and prompt use of an Automated External Defibrillator (AED) for victims of all ages.

2. Heart Saver (HS) – comprises First-Aid, CPR and AED use. Hands-on only CPR has been shown to be beneficial in some situations even by trained non-healthcare personnel.
3. Neonatal Resuscitation Program (NRP) - developed for handlers of the critically ill newborn during the first few minutes of life.
4. Pediatric Assessment Recognition and Stabilization (PEARS) – most useful in Children emergency department/ hospital.
5. Pediatric Advanced Life Support (PALS) – relevant for Pediatricians and Nurses who manage very ill children.
6. Advanced Cardiovascular Life Support (ACLS) – like PALS, is an advanced course targeting return to spontaneous circulation before transferring to a multidisciplinary expert team.
7. Advanced Trauma Life Support (ATLS) – developed since about 1980 by an American surgeon, it is a systematic process of trauma care for victims with life-threatening injuries.
8. Advanced Life Support in Obstetrics (ALSO) - developed by Family Physicians in the US, it is fast becoming a favorite of even Obstetricians.

For effective quality resuscitation, every situation must be considered unique and appropriate plans or provision made for unexpected developments. Such measures include relevant emergency equipment, availability of trained personnel/rescuer(s), level of expertise and adherence to local protocols.

## S17

### EMERGENCY MANAGEMENT ORGANISATION IN WEST AFRICA: CURRENT SITUATION AND PERSPECTIVES

#### Organisation de la prise en charge des Urgences en Afrique de l'Ouest : état des lieux et perspectives

M. Chobli, A. Talon, B. Tchaou, H. Kpadonou, E. Ahouou, J. Akodjenou, FSS, Cotonou, Benin Correspondance : mchobli@yahoo.fr

#### RÉSUMÉ

L'organisation de la prise en charge des urgences est un problème de santé préoccupant à travers le monde et dont les dysfonctionnements n'épargnent aucun pays, même les plus développés. Elle revêt un aspect de véritable problème de santé publique dans les pays en développement, singulièrement en Afrique subsaharienne où les défaillances touchent tous les piliers de la médecine d'urgence : infrastructures, équipements et pharmacie, ressources humaines qualifiées organisation rationnelle du système de santé. Quelle est la situation dans l'espace CEDEAO ? **Contexte:** La CEDEAO est un espace économique, social et culturel qui regroupe 15 pays d'Afrique de l'ouest dont 08 pays francophones, 05 pays anglophones et 02 pays lusophones qui totalisent en 2018 une population de plus de 380 millions d'habitants dont plus de la moitié au Nigéria. Les indicateurs sanitaires y sont tous décevants (espérance de vie très courte, mortalité maternelle élevée et néo-natale considérable).

#### Etats des lieux

**Comment est organisée la prise en charge des urgences médico-chirurgicales dans l'espace ?** Il n'y a rien de planifié à l'échelle communautaire tant en ce qui concerne les urgences individuelles qu'en cas d'urgences collectives (situations de catastrophe)

**Accueil hospitalier des urgences:** Les services d'accueil des urgences individuelles des hôpitaux francophones fonctionnent sur le même modèle d'urgences centralisées, à l'exception de l'obstétrique et la pédiatrie. Dans les pays anglophones, le Ghana dispose de la meilleure organisation alors que les situations sont très variables au Nigeria. Les autres pays de l'espace peinent à mettre sur pied une organisation efficiente Le système sanitaire Cap Verdien est plus performant.

**Volet Médecine préhospitalière:** Un service d'aide médicale d'urgence (SAMU) structuré existe en côte d'Ivoire, au Bénin, Sénégal et au Niger. En zone anglophone, le Ghana seul dispose d'un service de transport médicalisé préhospitalier, d'installation récente. Le SAMU Abuja est en structuration.

**Equipements et pharmacie:** Pour l'accueil des urgences dans les hôpitaux publics les équipements font souvent défaut et l'achat des médicaments est généralement à la charge des familles. Cette situation se retrouve dans tout l'espace.

**Ressources humaines en médecine d'urgence:** La formation de médecins urgentistes est rare dans l'espace, ce qui met en première ligne les anesthésiste-réanimateurs dans la gestion des urgences. C'est le cas dans tous les pays francophones et dans la plupart des autres pays. Le GHANA pays très actif au sein de African Federation of Emergency Medicine (AFEM) dispose d'un cursus de formation de médecins urgentistes. Le Bénin a initié une formation d'infirmiers urgentistes qui s'est révélés d'une grande utilité....

**Cas particuliers des urgences traumatologiques:** La traumatologie routière constitue un important problème de santé publique dans l'espace. Des efforts sont déployés notamment avec le leadership de la WACS (West African college of surgery) pour la mise en place de "Trauma Centers".

**Urgences de la mère et de l'enfant:** Elles sont gérées dans tous les hôpitaux en dehors des urgences centralisées: urgences à la maternité et urgences pédiatriques médicales. Les mêmes problèmes liés à l'indigence des moyens matériels et humains se retrouvent avec une acuité particulière dont la mortalité maternelle et la mortalité néonatale et infanto-juvénile sont des réfects inacceptables.

**Les urgences collectives:** Les situations de catastrophes ne sont pas régies par un plan précis au niveau de l'espace, un plan ORSEC National n'est pas toujours disponible et opérationnel.

**LE FUTUR?** Un plaidoyer s'impose pour une organisation efficiente de ce secteur dans l'espace en mettant l'action sur la mise sur pied d'une organisation type à cinq piliers (médecine préhospitalière,

accueil hospitalier centralisé des urgences, une politique de formation de ressources humaines en qualité et en quantité, une politique rationnelle d'équipements et une mutualisation des moyens face aux situations de crise sanitaire. Trois atouts importants sont déjà disponibles: WACS, WACP et WAHO.

(S = Symposium)

## OC1

### POINT OF CARE OVERT ANTI-COUNTERFEIT MEDICINE TECHNOLOGIES IN UNDER-RESOURCED ENVIRONMENT: A CROSS-SECTIONAL STUDY OF ITS AWARENESS, IDENTIFICATION, UTILIZATION, BARRIERS AND DANGERS OF COUNTERFEIT MEDICINES AMONG MEDICAL PRACTITIONERS IN ABIA STATE, NIGERIA

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## ABSTRACT

**Introduction:** Counterfeit medicines pose a serious threat to clinical and public health throughout the world but disproportionately afflict under-resourced nations with weak pharmaceutical regulatory mechanisms. The prescription of medicines is an event in which a medical practitioner is a decision maker for the ultimate consumer who is the patient.

**Aim :** The study was aimed at describing awareness, identification, utilization, barriers to utilization of point of care overt anti-counterfeit medicine technologies (ACMTs) and the dangers of counterfeit medicines among medical practitioners in Abia State, Nigeria.

**Methods:** This was a descriptive cross-sectional study carried out on 178 medical practitioners in Abia State,

Nigeria. Data collection was done using pretested, self-administered questionnaire that elicited information on awareness, identification, utilization of point of care ACMTs and its barriers. The dangers of counterfeit medicines were also studied.

**Results:** The age of the respondents ranged from 24–72(34±8.2) years. There were 159(89.3%) males. All the medical practitioners (100%) were aware of point of care ACMTs with the most commonly identified types being labelling (100%), printing graphics (100%), packaging (100%) and mobile authentication technologies (100%). The most commonly utilized ACMTs were labelling (100%) and packaging (100%) technologies. Time constraint (100%) was the predominant barrier to utilization of ACMTs while securing supply chain of medicines (100%) was the most recommended preventive measure. The commonest group of medicines faked were anti-malaria (100%) and anti-bacterial medicines (100%). The commonest danger and driver of counterfeit medicines were treatment failures (100%) and poor pharmaceutical products regulatory systems (100%) respectively.

**Conclusion:** Awareness of point of care ACMTs was very high but didn't translate to comparable utilizations. The most commonly utilized ACMTs were labelling and packaging technologies. Time constraint was the predominant barrier to utilization of ACMTs while securing supply chain of medicines was the most recommended preventive measure. The commonest groups of faked medicines were anti-malaria and anti-bacterial medicines. The commonest danger and driver of counterfeit medicines were treatment failures and poor pharmaceutical products regulatory system respectively.

## OC2

### PRE-RETIREMENT OCCUPATION AS A HEALTHCARE WORKER, IS ASSOCIATED WITH WORSE HEALTH OUTCOMES AFTER RETIREMENT

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**Background:** Occupation is a major determinant of health outcome. Healthcare workers are assumed to know how to prevent diseases and live a healthy life. The aim of this study is to determine the association between pre-retirement occupation as a healthcare worker and health outcomes after retirement.

**Methods:** Cross-sectional study was conducted among members of the national pensioners association in Ghana. Thirteen study centres were used in the study with at least one centre per regional capital. Questionnaires administration, physical examinations, blood and urine sample examinations were carried out. Overall, 4813 pensioners took part in the survey.

**Results:** A total of 403 (8.4%) of the 4813 study participants were healthcare workers. After retirement, healthcare workers die earlier compared non-health workers. Life-table analysis of data shows that, 51.9% (95% CI=47.1–56.9) of health workers die within five years after retirement, compared to 35.9% (95% CI=34.5–37.4) of non-health workers within same time period. Healthcare workers had significantly higher prevalence of obesity (34.0, 95% CI=29.5–38.8), self-reported hypertension (54.8%, 95% CI= 49.9–59.7) and high serum total cholesterol (46.4%, 95% CI= 48.7–58.5) compared to non-health workers. Logistic regression of factors independently associated with healthcare workers health outcome after retirement, shows that, healthcare workers were almost twice more likely to have Arthritis (AOR=1.6, 95% CI=1.2–2.1), Hearing loss (AOR=2.0, 95% CI=1.2–3.1), Ischaemic Heart Disease (AOR=2.0, 95% CI=1.2–3.3), and Cerebrovascular accident (AOR=2.1, 95% CI=1.1–4.0), compared to non-health workers.

**Conclusion:** Retired health workers die earlier after retirement compared to non-

health workers and have higher prevalence of non-communicable disease and its risk factors compared to non-health workers.

**Keywords:** Healthcare workers, health outcome, pension, occupation.

### OC3

#### Initiation de doctorants à l'approche Santé et Environnement. Illustrations à l'UFR Santé de Thiès

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**Contexte:** L'OOAS (Organisation Ouest Africaine pour la Santé) a instruit l'introduction dans les curricula d'une UE (Unité d'enseignement) portant sur les interactions entre la Santé et l'Environnement. Cette initiative a pour but de promouvoir le développement durable (DD). L'UFR Santé de Thiès (Sénégal) présente des résultats satisfaisants après cinq (05) années de déroulement du module « Introduction à l'approche Ecosanté ».

**Méthodologie:** Cinq chapitres sont déroulés, sur les thèmes suivants: (i) Concepts et outils du développement durable (ii) Principes de l'approche Ecosystème et Santé (iii) Dimension culturelle en EcoSanté (iv) Ethique dans le cadre de la biodiversité (v) Etude de la Médecine Traditionnelle. Le cours est à la charge de 2 enseignants de rang A: un Professeur Titulaire de Pharmacognosie et un Maître de Conférences Agrégé en Médecine Interne formés en Ecosystème et Santé. Les cours magistraux se déroulent sur 10 heures et les 10 autres heures sont affectées au TPA (travail personnel de l'apprenant). L'évaluation est intermédiaire et terminale et inclut la proposition et l'introduction d'un thème d'Ecosystème par les étudiants.

**Résultats:** En 5 ans, 261 étudiants soient 5 promotions ont bénéficié de cet enseignement. Les sujets proposés par les étudiants en TPA, et traités en groupe ou individuellement, ont illustré une très

bonne compréhension des liens complexes qui existent entre la Santé et l'Environnement. Ainsi, il a été question d'enquêtes menées dans la commune de Thiès et portant sur (i) CAP (connaissances, attitudes, pratiques) sur la gestion des ordures ménagères dans la commune (ii) Corrélation entre paludisme et environnement du patient (iii) problématique de l'approvisionnement en eau dans la ville (iv) CAP des travailleurs des stations-service concernant les effets des hydrocarbures sur l'écosystème et sur les usagers, y compris eux-mêmes (v) CAP sur la conception du développement durable par les paysans et pasteurs du village de Touba-Peycouk (10 Km de Thiès). D'autres sujets aussi pertinents ont été traités comme le SAC (service à la communauté) par le concept One Health ; exemple de l'UPT (Université Polytechnique de Thiès) pour un village de pasteurs. Les doctorants ont aussi proposé des thèmes comme la Réflexion sur les modes de pêche nuisibles au DD et les méfaits de l'intoxication sonore chez les personnes habitant près des aéroports.

**Conclusion:** L'approche écosystémique à la santé a bien été intégrée dans la formation médicale à l'UFR des sciences de la Santé de Thiès initiant ainsi les apprenants aux problématiques et intrications entre l'environnement et les questions de santé. L'analyse à 5 ans de déroulement de cet enseignement montre une bonne compréhension par les apprenants du DD.

**Mots clés:** Ecosanté-UFR Santé Thiès-Développement durable.

### OC4

#### PREVALENCE, SOCIO-DEMOGRAPHIC AND ENVIRONMENTAL DETERMINANTS OF ASTHMA IN 4,621 GHANAIAN ADULTS: EVIDENCE FROM WAVE 2 OF THE WORLD HEALTH ORGANIZATION'S STUDY ON GLOBAL AGEING AND ADULT HEALTH

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## ABSTRACT

**Introduction:** A previous multi-site study involving lower- and middle-income countries demonstrated that asthma in older adults is associated with long-term exposure to particulate matter, male gender and smoking. However, variations may occur within individual countries, which are relevant to inform health promoting policies as populations live longer. The present study estimates asthma prevalence and examines the sociodemographic characteristics and environmental determinants associated with asthma in older adults in Ghana.

**Methods:** This study utilised data from the nationally representative World Health Organization Study on global AGEing and adult health (SAGE) Ghana Wave 2 data. A final sample of 4,621 individuals residing in 3,970 households was used in analytical modelling. Factors associated with asthma were investigated using single level and multilevel binary logistic regression models.

**Results:** Asthma was reported by 102 (2.2%) respondents. Factors associated with asthma in the univariate model were age, ethnicity, religion, present health state, difficulty with self-care, source of drinking water and type of toilet facility in households. Factors independently associated with asthma in the adjusted models were age, father's education, religion and type of toilet facilities in households. Significant residual household-level variation in asthma was observed.

**Discussion:** Individual as well as household factors were seen to influence the prevalence of asthma in this national survey. Clinical management of these patients in health facilities should consider household factors in addition to individual level factors.

**Keywords:** Asthma, non-communicable disease, determinants, older adults, ageing, multilevel models, SAGE, Ghana, low income countries, middle income countries.

## OC5

### Hygiène corporelle et survie en réanimation du Centre National Hospitalier et Universitaire HKM (CNHU-HKM) de Cotonou : A propos de 100 cas consécutifs

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## RÉSUMÉ

**Introduction:** L'hygiène corporelle représente l'ensemble des mesures destinées à préserver la propreté des vêtements par le nettoyage avec de l'eau et des produits nettoyant. Aucune étude au Bénin n'a recherché de lien entre l'hygiène corporelle du patient à leur admission en réanimation, leur gravité et leur survie.

**Patients et Méthodes:** Etude prospective sur 100 patients consécutifs, chez qui l'état d'hygiène à leur arrivée avait été renseigné par la grille des malades psychiatriques qui classe l'hygiène corporelle en 3 niveaux : Satisfaisant (apparence propre sur 2 semaines), Limite (tendance à oublier /négliger l'hygiène du visage, de la bouche ou du corps) et Insuffisant (Personne ne fait pas les soins minimums sur le visage, la bouche, le corps). Les paramètres recensés étaient : l'âge, le sexe, le motif d'admission, l'IGS II (Indice de Gravité Simplifié), la durée de séjour et la mortalité.

**Résultat:** La moyenne d'âge était de 46 ans. L'hygiène corporelle à l'admission était évaluée : Satisfaisant 29% (n=29), Insuffisant 32% (n=32) et Limite 39% (n=39). Le sexe masculin était plus associé sur le fait d'être insuffisant (19/32) et limite (22/39)  $p < 0,001$ . Les principaux motifs d'admission étaient les TCE graves (n=21), AVC (n=17), Embolie pulmonaire/OAP (n=13). Les patients limitent et insuffisant avaient respectivement 32 et 30 comme IGS II plus élevé et les patients satisfaisant l'IGS II plus élevé était 15. La durée de séjour n'était pas affectée par l'hygiène corporelle du patient. La mortalité en réanimation était de 57%. Elle était significativement plus élevée dans

le groupe des limites (29/39) que dans celui des satisfaisant (6/29) avec  $p < 0,001$ . Le groupe Satisfaisant, l'IGS II bas et le jeune âge étaient plus associés à la survie ( $p < 0,001$ ).

**Conclusion :** Il apparaît donc que l'état d'hygiène altéré favorise la gravité et la mortalité des patients admis en réanimation.

**Mots clés:** Hygiène corporelle, réanimation, Centre National Hospitalier et Universitaire.

## OC6

### Effets du climat sur la morbidité et la qualité de vie des populations : cas du climat chaud et humide du sud-Bénin

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## RÉSUMÉ:

**Introduction:** Plusieurs ODD visent la réduction de la morbidité et de la mortalité. Le bien-être et la qualité de vie dépendent essentiellement des comportements et de l'environnement ; notamment le climat, à travers les facteurs physiques d'ambiance.

**Méthode:** Nous présentons une synthèse de revue de la littérature en médecine et en bioclimatologie essentiellement.

**Résultats:** Le sud-Bénin connaît une ambiance climatique caractérisée par la chaleur, une humidité relative de l'air toujours élevée et une forte pluviométrie. Cette chaleur humide est propice au développement de microorganismes pathogènes responsables de maladies telles que le paludisme, la bilharziose, les pneumopathies infectieuses et allergiques, la leptospirose chez les ouvriers chargés du curage des égouts, les intertrigos notamment chez les militaires et les cadres contraints à porter des chaussures fermées. Le risque de choc thermique n'est pas négligeable chez ceux qui viennent des pays à climat tempéré et vice versa, imposant quelques

jours d'acclimatation. Les degrés d'humidité élevés observés au niveau du littoral sont à la base du sick building syndrome (SBS) et des problèmes de santé liés à la climatisation défectueuse des locaux. Les fortes pluies et leur cortège d'inondations posent des problèmes d'insécurité, d'inconfort et augmentent de façon cyclique la prévalence des maladies hydriques (gastro-entérites, choléra, hépatite A...). Ce climat de bord de mer présente aussi des avantages : ensoleillement (vitamine D, contrôle de l'ictère physiologique du nouveau-né), apport d'iode. Le problème de raréfaction d'oxygène observé en altitude pour la vie et le travail y est absent.

**Mots-clés:** Climat chaud et humide, bord de mer, morbidité, qualité de vie.

#### OC7

### Exposition à l'hexane et troubles respiratoires chez les travailleurs d'une huilerie au Bénin en 2018

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**Introduction:** L'hexane est un solvant hydrocarbure utilisé dans l'extraction de l'huile végétale. L'exposition à l'hexane peut engendrer des troubles neurologiques, respiratoires et de la reproduction. L'objectif de l'étude était d'évaluer la prévalence des perturbations respiratoires chez les travailleurs exposés à l'hexane.

**Cadre et Méthode:** Il s'agissait d'une étude transversale incluant les travailleurs permanents d'une huilerie du Bénin au sein de laquelle il existe des moyens de protection collective dans le cadre de l'exposition à l'hexane. Les données ont été collectées à l'aide d'un questionnaire, d'un spiromètre et de la radiographie thoracique. Une analyse descriptive et comparative a été réalisée

grâce au test de chi<sup>2</sup> au seuil de  $p < 0,05$ .

**Résultats:** Au total 61 travailleurs ont été inclus. L'âge moyen était de  $46 \pm 6,82$  ans avec un sex ratio de 5,7. Parmi eux, 8 (13%) étaient exposés à un risque chimique lié à l'inhalation de l'hexane. Au plan spirométrique, il y avait : 2 (25%) d'anomalies spirométriques toutes restrictives chez les exposés vs 7 (13,2%) anomalies spirométriques (2 restrictions, 3 obstructions, 2 syndromes mixtes)  $p < 0,01$ ; la moyenne des paramètres pris séparément donnait : VEMS  $92 \pm 9,3$  exposés vs  $96 \pm 12,3$  non exposés; DEP  $90 \pm 14$  vs  $95 \pm 16$ ; FEF<sub>25/75</sub>  $3,18 \pm 0,7$  exposés vs  $3,18 \pm 1,1$  non exposés; CVL  $3,18 \pm 0,7$  exposés vs  $3,87 \pm 0,6$  non exposés. Au plan radiologique, il y avait 2 (25%) anomalies toutes des syndromes bronchiques chez les exposés vs 3 (5,6%) anomalies radiologiques dont 2 syndromes bronchiques chez les non exposés.

**Conclusion:** Les perturbations respiratoires sont plus élevées chez les travailleurs exposés que les non exposés. Une analyse plus approfondie et le renforcement des mesures de prévention sont nécessaires

**Mots clés:** Hydrocarbure- Hexane- Troubles respiratoires- Travailleurs.

#### OC8

### THE INVESTIGATION OF ANTI-OXIDANT STATUS IN MATURE LYMPHOID MALIGNANCIES: EFFECTS OF CHEMOTHERAPY

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**Introduction:** The requirements for good health and school performance of children aged 5 to 12 years, who are particularly vulnerable, involve adequate nutritional intake. Few works have looked at the adequacy of dietary intakes with the nutritional status of school-aged children in our setting.

**Objective:** To evaluate the anthropometric nutritional status and dietary energy and protein intakes of schoolchildren aged 5–12 years in Togbin, southern Benin.

**Methods:** This was a cross-sectional descriptive study that comprehensively included schoolchildren aged 5 to 12 years from all public and private primary schools in Togbin. Nutritional status was assessed by weight, height measurement, body mass index (BMI), and weight-for-height ratio; and energy and protein consumptions by the 24-hour dietary recall. Data processing was computer-based.

**Results:** 555 children were recruited, mostly from a low socio-economic background (79.3%). Mean age was 9 years, sex ratio 1.1. BMI-for-age was normal in 74.6% of cases. Undernutrition was found in 24.7% and overweight in 0.7% of cases. One point eight percent of children were severely stunted. Breakfast, lunch, and dinner were taken by 49.8%; 94.6% and 98.4% of children respectively. The 24-hour diet evaluation found an average energy consumption of 1071.5 Kcal per child (71.18 to 1717.25) Kcal). The average protein intake was 182 Kcal per child (35 to 454 Kcal).

**Conclusion:** Undernutrition is quite prevalent in the schoolchildren studied, with energy and protein intake well below recommended standards. It is important to carry out nutritional promotion actions in this setting.

**Keywords:** Nutritional status, food intake, undernutrition, stunting, children, Benin.

#### OC9

### ENERGY, PROTEIN INTAKE AND ANTHROPOMETRIC NUTRITIONAL STATUS OF SCHOOL CHILDREN FROM 5 TO 12 YEARS IN A SOUTHERN BENIN SETTING

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#### OC10

### A CROSS-SECTIONAL SELF-ASSESSMENT OF BURNOUT AMONG A COHORT OF DOCTORS IN GHANA

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#### ABSTRACT

**Introduction:** The occurrence of burnout among African health professionals has been widely anticipated but published data is lacking, especially among doctors. Burnout has been reported to be as high as 53% among doctors in the United States with physicians being more likely to experience this than any other workers.

The aim of this study was to determine the prevalence of burnout among a cohort of non-surgical doctors in Ghana.

**Methods:** A cross-sectional study was conducted among physicians attending a conference organised by the West African College of Physicians, Ghana Chapter. Of the 90 physicians who registered for the conference, 60 responded to a self-administered Maslach Burnout Inventory questionnaire as part of conference proceedings. Data were analysed descriptively and inferentially using STATA<sup>®</sup> version 14.

**Results:** Approximately 52% of respondents had been in medical practice for 10–19 years (mean 15.4 years). All the major non-surgical specialties were represented. Internal Medicine had the highest number of participants (48.3%). The prevalence of the components of high-level burnout was recorded as emotional exhaustion 8.3%, depersonalization 20% and personal achievement 10%. The association between burnout and age, gender, years of practice and clinical specialty was not found to be statistically significant.

**Conclusion:** This pilot study has shown burnout to be common among Physicians in Ghana. It is recommended for further studies to be conducted, involving a

larger cross-section of doctors in various parts of Africa.

#### OC11

### RISK ASSESSMENT OF HUMAN EXPOSURE TO USED ELECTRONICS AND E-WASTE AMONG SMALL HOLDER ELECTRONIC TECHNICIANS IN A PERIURBAN CITY OF NIGERIA

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**Introduction:** E-waste is the fastest growing waste stream worldwide with estimated yearly generation put at 20–50 million tones, representing 1–3% of the world's municipal waste. Developing countries are common destinations for e-waste dumping through the procurement and use of electronic products that are near to their end of life. Work-place and on-site data on e-waste related human risks is rare in Nigeria.

**Aims and Objectives:** To determine the e waste generation and stockpiling rate, the hazards and the bio-accumulation of lead as an indicator of exposure to hazardous components of used electronics and e-waste.

**Methods:** A minimum sample size of 312 electronic technicians were drawn from electronic technicians in the study area using cluster sampling technique. Interviewer-administered questionnaires and check lists were used to obtain information on quantity of e-waste generated, hazards and risk of handling e-waste, and work place practices related to exposure to e-waste. Venous blood was drawn from 107 randomly selected technicians and 55 controls for the determination of blood lead levels (BLLs). Blood samples were analysed using Atomic Absorption Spectrophotometre (AAS) at the Chemical Pathology Laboratory, University of Ibadan, Nigeria.

**Results:** e-waste and related items in the electronic technicians workshops amounted to about 246 tonnes. Televisions made up over two-third (78%) of the volume assessed. The commonest reason for the pile up of e-waste was



abandonment (79.4%). Electric shock, hot surfaces/tools and chemical dust (fumes) were the commonest hazards. About 70.3% of participants did not use any form of personal protective equipment (PPE); Mean blood lead level (BLL) of subjects was  $17.06 \pm 15.15$  mcg/dL and was significantly higher than that of controls which was  $2.39 \pm 1.43$  ( $p < 0.0001$ ). High BLL was found in 51.4% of electronic technicians; no high BLL was found among controls. Television and radio technicians were prone to higher risks than computer or phone technicians.

**Conclusion:** Electronic technicians are significantly exposed to the hazards of e-waste and related materials. Mean blood lead levels of electronic technicians in the study were significantly higher than that of controls.

## OC12

### Caractérisation de l'activité de concassage artisanal de pierres dans le secteur informel: cas du département des collines au Bénin

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#### RÉSUMÉ

**Introduction:** L'activité de concassage de pierres regorge de multiples facteurs de risque. Les Collines, département de 3 zones sanitaires, situé entre les parallèles 7° et 8°45 de latitude nord, sur 13.931 km<sup>2</sup>, est une zone de pénélaine composée essentiellement de roches granitiques dont les graviers sont très demandés en BTP.

**Méthode:** Une revue documentaire a été associée à une collecte de données sur le terrain combinant observations et interviews sur 5 sites des communes de Savalou, Dassa et Glazoué. La taille de l'échantillon a été obtenue par la technique des groupes homogènes

d'exposition (GHE).

**Résultats:** L'activité de concassage de pierres comprend plusieurs étapes : prélèvement de la roche-mère à partir d'un grand feu de bois sur la colline (pyro-diaclage), fragmentation en 2 ou 3 phases, réduction en gravillons, chargement et transport. Les outils sont essentiellement des marteaux, mais aussi de grosses barres de fer de plus d'un mètre, des pelles, houes, coupe-coupe, arceaux métalliques et pneus usagés à grand diamètre. Des morceaux de pierre servent de siège et d'enclume. La posture dominante pour le concassage chez les femmes est assis-jambes pliées encadrant l'enclume. Dans quelques cas, il existe des abris précaires pour elles mais les premières étapes du processus font par les hommes, avec les plus gros marteaux (masse de 10 à 20 kg avec manche en bois de 60 à 70cm de long et 25cm de pourtour), au soleil. Les enfants sont présents sur l'ensemble des sites échantillonnés. L'activité est faite de mouvements répétitifs, d'efforts physiques intenses, de postures contraignantes, de longues durées de travail dans une ambiance de chaleur, de bruits complexes assourdissants et de vibrations manu-brachiales importantes avec exposition à des projectiles pointus et tranchants et aux poussières minérales.

**Conclusion:** Cette caractérisation fait ressortir outre le risque traumatique, le risque de troubles musculo-squelettiques et le risque cardio-respiratoire, le risque majeur d'éboulement.

**Mots-clés:** Concassage de pierres, risques professionnels, Collines, poussières minérales.

## OC13

### EXPLORING KEY DRIVERS OF SUPPLY CHAIN MANAGEMENT PERFORMANCE IN PUBLIC HEALTH FACILITIES: A SCOOPING REVIEW

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**Introduction/Background:** Healthcare supply chain management (SCM) is a set of approaches to link medicines, equipment, laundry, food, suppliers, vendors, hospital and transport for efficient and effective use of resources to achieve Total Quality Management including customers' satisfaction. This is necessary within the context of sustainable development goal 3. There is dearth of documented evidence on drivers of SCM performance especially in low and middle income countries like Nigeria. Therefore, understanding these drivers will make it easier to combat inefficiency in public health facilities

**Methodology:** This was a scoping review of articles published from 2001 to 2018. The model for understanding key drivers of SCM performance draws on evidence for understanding drivers of health inequalities. This was used to analyse the findings. These drivers are operationalised at three distinct but interconnected levels of society, namely social/political context (macro), institutional practice (meso), and individual action and behaviour (micro) are nested within each other.

**Results:** At the macro level, drivers of SCM performance involved interrelated issues of inadequate funding and market price fluctuations. At the meso level are poor management support and lack of collaborative and strategic planning; unclear accountability mechanism; poor management of facilities, transport, drugs, consumables and information systems; poor positioning of new technologies in services; lack of collaboration among decentralized actors of supply chain and lack of human resources. At the micro level are lack of SCM knowledge; lack of cooperation among supply chain users and non-compliance to rules.

**Conclusion:** These drivers are closely related with each other and have a greater impact on health organisation performance. Therefore, there is need to find a situation where both efficiency and responsiveness in supply chain practices are at average level to enhance their performance. This can only be achieved through better management of these drivers and targeting them for intervention.

**OC14**  
**BODY WEIGHT PERCEPTION AND MANAGEMENT PRACTICES OF OVERWEIGHT AND OBESE PRIMARY CARE PATIENTS IN NIGERIA**

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**ABSTRACT**

**Introduction:** Overweight and obesity are driving forces for chronic diseases in primary care setting globally. Patients' weight and body size self-perceptions do influence weight management practices. The objectives of the study were to determine the accuracy of body weight and size self-perceptions and weight management practices of overweight/obese patients in Nigeria.

**Methods:** A Cross-sectional study of Overweight/Obese adult patients receiving care at practice-based research network (PBRN) primary care facilities in Nigeria was conducted using. Interviewer-administered questionnaires and Modified Stunkard's body silhouettes to collect information on body weight and size perceptions; weight management practices; weight and height.

**Results:** Of the 1071 overweight/obese patients from 89 tribes analyzed, 27.5% (n=294/1071) correctly perceived their body weight status. Significantly more overweight (44%; n=132/302) than obese (21%; n=162/769) patients correctly

perceived their weight status. ( $\chi^2$  29.7;  $P < 0.001$ ). Overweight patients (48.3%; n=146/302) were about 3 times more likely than obese patients (18.3%; n=141/769) to misperceive their weight status as normal. (OR 2.64; CI 2.0–3.4). Also, 62.7% (n=671/1071) of patients correctly perceived their body sizes. A significantly higher proportion of male (9.4%) than female (4.9%) overestimated their body size. ( $\chi^2$  6.45;  $P = 0.01$ ). Preferred body size choices showed that about 59% (n=629/1071) of participants preferred overweight body size, 29.4% normal weight body size and 2% preferred underweight body size. Only 17.4% (n=186/1071) of patients were engaged in weight loss activities. Overweight and obese perceivers were two and half and three times respectively, more likely than normal weight perceivers to engage in weight loss activities. ( $\chi^2$  6.81;  $P < 0.01$ ). **Conclusion:** Most Overweight and Obese patients' perception of body weight status is highly underestimated with preference for overweight body size. Weight perception influences participation in weight management practices. Tackling overweight and obesity problem will require addressing body weight misperception first before adoption of weight reduction activities.

**OC15**  
**THE KNOWLEDGE AND PRACTICE OF HANDWASHING AMONG MOTHERS OF PRIMARY SCHOOL CHILDREN IN KADUNA SOUTH AND CHIKUN LOCAL GOVERNMENT AREAS, NIGERIA**

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**Introduction:** Hand washing contributes to reduction in child mortality. The prevalence of correct practice of hand washing is however low globally. The study was conducted to investigate knowledge and practice of hand washing

among mothers and primary school children in Kaduna, Nigeria.

**Methods:** This cross-sectional study, involved both qualitative and quantitative methods. Two Local government areas in Kaduna, (Kaduna South and Chikun), were purposively selected and then 398 mothers via a 3-stage sampling technique. A pre-tested, semi-structured questionnaire was employed in obtaining information including knowledge and practice of hand washing. Focus group discussions among pupils aged 6 – 11 years ( $n = 4$  groups) and observations of hand washing facilities in selected schools were also conducted. Descriptive statistics, Chi square and binary logistic regression were used to analyse data. (p)

**Results:** Mean age of mothers was  $34.8 \pm 7.1$  years. Although 89.9% knew the importance of handwashing, only 21.6% washed their hands at critical moments, identifying lack of time (57.5%) and water (22.4%) as barriers to washing their hands. Mothers with at least primary education were 3 times more likely to discuss handwashing with their children than those with no formal education (OR=3.0,  $p = 0.03$ . 95% C.I=1.10-8.56) Knowledge about hand washing was high amongst pupils but on observation, facilities for handwashing were inadequate in schools.

**Conclusion:** Many mothers did not wash their hands appropriately. Mothers need to be re-enlightened about hand washing and should educate their children about hand washing. Hand washing among pupils can be improved by providing the facilities in schools.

**Keywords:** Hand washing, Mothers Practices, Primary school children.

**OC16**  
**Evaluation de l'efficacité de la prise en charge nutritionnelle des faibles poids de naissance au CHU-Mel de Cotonou en 2019**

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**Introduction:** La PEC nutritionnelle des faibles poids de naissance (FPN) demeure un défi majeur pour le personnel soignant. L'objectif de notre étude était d'évaluer l'efficacité de la prise en charge nutritionnelle des FPN au Centre hospitalier universitaire Mère-Enfant/Lagune (CHU-MEL) de Cotonou en 2019.

**Méthode d'étude:** Il s'agissait d'une étude transversale, descriptive et évaluative qui s'est déroulée du 1er janvier au 31 avril 2019. Elle concernait 27 prestataires de soins, 66 mères et 79 enfants de faible poids de naissance. Les cibles ont été recrutées par choix raisonné et par commodité. Les données sur les intrants, l'organisation des soins et services de prise en charge nutritionnelle des FPN, le gain pondéral des FPN et la satisfaction des parents venus dans l'unité ont été collectées.

**Résultats:** L'appréciation des composantes intrants, le processus (connaissance des documents de norme, organisation des soins, surveillance, organisation des services, motivation du personnel, hygiène) était moyenne soit respectivement 65,91% et 72,30%. La satisfaction des parents des enfants malnutris était bonne 89,4% ; le taux de mortalité était de 24,47%. La variation pondérale absolue moyenne journalière était de 23,21±26,78g. L'efficacité globale de la prise en charge était moyenne avec un score de 69,10%.

**Conclusion:** Cette étude a permis d'évaluer l'efficacité de la prise en charge nutritionnelle des FPN et de faire quelques suggestions par rapport aux insuffisances qui ont été notées. La mise en oeuvre des suggestions issues des résultats de la recherche, permettra d'avoir une meilleure efficacité de la prise en charge dans l'unité de néonatalogie du CHU-MEL de Cotonou au Bénin.

**Mots clés:** Evaluation; Prise en charge nutritionnelle; Faible poids de naissance; Cotonou, Bénin.

#### OC17

**Passage des adolescents infectés par le VIH vers le service d'adultes au Centre National Hospitalier et Universitaire HKM de Cotonou**

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**Introduction:** Le passage des adolescents infectés par le VIH dans la file active adulte autrefois difficile est devenu une réalité grâce à l'appui du réseau Enfance VIH Afrique (EVA).

**Objectif :** Décrire la procédure du passage vers le site de prise en charge des adultes, des adolescents infectés suivis en pédiatrie.

**Patients et méthodes:** Il s'agissait d'une étude transversale et descriptive concernant les adolescents infectés âgés d'au moins 17 ans, informés de leur statut dont le consentement et celui de leurs parents avaient été obtenus. Les séances de préparation étaient réalisées en groupe de parole et individuellement. L'adolescent était prêt au passage lorsqu'après deux séances au moins, il donnait son consentement. Les données recueillies à partir des dossiers patients étaient complétées par un entretien avec les adolescents sur le vécu de leur passage.

**Résultats:** Au total 29 adolescents avaient participé à l'étude. L'âge moyen au début du suivi était de 8 ans, la sex ratio de 1,4. La durée moyenne de suivi était de 11 ans. L'âge moyen à l'annonce du statut VIH était de 15,9 ans. L'âge moyen au moment du transfert était de 19,7 ans. Le délai moyen entre l'annonce du statut VIH et le passage sur le site adulte était de 3,6 ans. Six adolescents avaient vécu le passage comme un débarras tandis que 23 l'avaient trouvé bien justifié. Les consultations étaient bien organisées et le circuit convenable pour 28 adolescents.

**Conclusion :** Le passage devenu une réalité sur le site pédiatrique du CNHU-HKM gagnerait en qualité par une amélioration de la procédure de l'annonce.

**Mots Clés:** Adolescents et VIH, Passage, Site adulte, CNHU-HKM, Cotonou.

#### OC18

**La prévention et réparation des risques liés au soudage chez les soudeurs de la commune d'Abomey-Calavi au Bénin**

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**Résumé:** La présente étude a pour but d'évaluer les moyens de prévention dont disposent les soudeurs et les mécanismes de réparation des risques auxquels ils sont exposés.

C'est une étude descriptive transversale sur la période allant de Juillet à Octobre 2017. Elle a porté sur 24 soudeurs de sexe masculin âgés entre 21 et 54 ans. L'analyse des données a été faite à l'aide des logiciels STATA et SPSS version 17. Cette étude montre que la prévention technique est défailante : Elle est de 00 % pour la prévention collective, et mal suivie pour la prévention individuelle. 100 % des soudeurs disposent de lunette de soudage et 75 % de masque de soudage. Pourtant 100 % des soudeurs ont souffert au moins une fois l'an de pathologies oculaires. Ce qui met en doute la qualité des lunettes et des masques de soudage. Les autres EPI sont utilisées dans les proportions suivantes : Bottes 50 %, Gants 33,33 %, vêtements de soudage 4,7 %. La prévention médicale est inexistante. Aucun soudeur n'a fait la visite médicale d'embauche. Tous n'ont jamais fait la visite médicale annuelle systématique encore moins de visite d'entreprise. Aucun soudeur n'est déclaré à la CNSS. En l'absence de déclaration et de cotisation à la CNSS aucun soudeur ne bénéficie de réparation en cas d'accident du travail ou de maladie professionnelle.

Donc les soudeurs travaillent dans la précarité et méritent d'être mis en mutuelle ou association pour dynamiser leur profession.

**Mots clés:** Soudeur, prévention, réparation, Abomey-Calavi, Bénin.

#### OC19

**Approche psychologique et motivations de la dépigmentation cosmétique volontaire chez les sujets de sexe féminin à Parakou (Bénin)**

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## RÉSUMÉ

**Introduction:** La dépigmentation cosmétique volontaire (DCV) est phénomène social et les motivations qui y sont liées, sont complexes. L'objectif était d'étudier l'approche psychologique et les motivations de cette pratique chez les sujets de sexe féminin à Parakou (Bénin) en 2019.

**Méthode:** Il s'est agi d'une étude transversale, descriptive et analytique déroulée du 1er mai au 15 juin 2019. Ont été inclus, les sujets de sexe féminin âgés d'au moins 15 ans et résidant à Parakou. L'analyse des données a été effectuée avec le logiciel Epi Info version 7.2.

**Résultats:** Au total 1680 sujets de sexe féminin ont été retenus. Leur âge moyen était de 29,69 ± 8,74 ans. Parmi eux, 32,62% avaient le niveau d'étude secondaire dont 29,40% d'élèves ou étudiantes. La DCV était pratiquée chez 57,74% d'entre eux. Au sein des pratiquantes, 9,38% avaient déclaré vouloir arrêter la DCV alors que 71,86% n'ont jamais eu l'intention de l'arrêter. La principale motivation était d'avoir un teint uniforme et lumineux (75,57%). L'anxiété, le type de ménage, l'usage de tatouages et l'usage de piercings étaient statistiquement associés à pratique de la DCV ( $p < 0,05$ ). Les complications étaient dominées par les vergetures et les acnés (87,32%).

**Conclusion:** L'ampleur et les complications de la DCV dénotent du problème de santé publique que constitue cette pratique en Afrique. La présente approche psychologique doit orienter sur de nouvelles pistes de lutte contre ce fléau social.

**Mots-clés:** DCV, approche psychologique, sujets de sexe féminin, Parakou.

## OC20

Profils épidémiologiques et clinique de la dermatite atopique chez les enfants à Parakou (Bénin) en 2019

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## RÉSUMÉ

**Introduction:** L'objectif de notre étude était de déterminer le profil épidémiologique et clinique de la dermatite atopique (DA) chez les enfants à Parakou (Bénin).

**Méthode:** Il s'agissait d'une étude transversale, descriptive et analytique ayant porté sur des enfants de 0 à 15 ans, sélectionnés après un sondage par grappe à deux degrés. Le diagnostic de DA avait été posé sur la base des critères de la United Kingdom Work Party (UKWP). Les données ont été analysées avec le logiciel Epi info version 3.5.1.

**Résultats:** Au total, 157 enfants porteurs de DA avaient été retenus parmi 2160 examinés (7,27%). Leur âge moyen était de 4,74 ± 4,33 ans. La sex-ratio était de 1,57 et la majorité des enfants (80,25%) faisaient leurs poussées quelle que soit la saison climatique. Les lésions élémentaires prédominantes étaient l'érythème (91,97%), les croûtes et érosions (74,45%). Les signes mineurs de l'atopie les plus présents étaient la xérose cutanée (91,97%) et le signe de Dennie-Morgan (76,64%). Les lésions prédominaient au niveau des sillons rétro-auriculaires (41,61%). Les formes cliniques dominantes étaient l'eczéma vulgaire (48,18%), l'eczéma lichénifié (32,85%) et impétiginisé (24,09%). Dans notre population d'étude 67,15% avaient une DA modérée selon le Scoring Atopic Dermatitis (SCORAD).

**Conclusion:** La fréquence de la dermatite atopique chez les enfants à Parakou n'est pas négligeable et les manifestations cliniques sont variées.

**Mots clés:** Epidémiologie, clinique, dermatite atopique, enfants, Parakou.

## OC21

Caractéristiques du nouveau-né de mère éclampsique au Centre Hospitalier Universitaire Sylvanus Olympio de Lomé (Togo)

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**Introduction:** Les troubles hypertensifs gravidiques dont l'éclampsie touchent environ une femme enceinte sur dix dans le monde. L'éclampsie est une cause majeure de morbi-mortalité maternelle et néonatale. L'objectif du présent travail était de décrire les caractéristiques du nouveau-né de mère éclampsique. **Patients et méthode:** Il s'agissait d'une étude rétrospective menée dans le service de gynéco-obstétrique du Centre Hospitalier Universitaire Sylvanus Olympio de Lomé du 1er Janvier 2016 au 31 Décembre 2017. Ont été inclus les nouveau-nés de mère éclampsique du pré et du per partum. Les données collectées chez les mères étaient : les caractéristiques sociodémographiques, les antécédents obstétricaux, la protéinurie à la bandelette, le mode d'accouchement. Les données collectées chez les nouveau-nés étaient : le terme, le sexe, le poids, le score d'Apgar et les complications (coma, convulsion et décès).

**Résultats:** La fréquence globale de l'éclampsie était de 1,46% (N = 250). La fréquence de l'éclampsie du pré et du per partum était de 1,38% (N = 236). L'âge moyen des mères était de 22,46 ans. Les mères étaient des célibataires dans 67,60%, analphabètes dans 42,40%, couturières dans 38,80% et primigestes dans 59,60% des cas. Elles avaient accouché par césariennes dans 93,22% des cas. Les nouveau-nés étaient des prématurés dans 79,32%, de sexe masculin dans 64,55%, des hypotrophes dans 79,32% des cas. Le score d'Apgar était inférieur à 7 dans 39,66% des cas à la première minute et dans 8,86% des cas à la cinquième minute. La proportion de décès néonatal était de 6,75%.

**Conclusion:** Le nouveau-né de mère éclampsique était accouché par césarienne par une primigeste jeune et sa morbi mortalité était très élevée.

**Mots clés:** Éclampsie, nouveau-né, caractéristiques, morbi-mortalité.

## OC22

### Évaluation de l'allaitement maternel exclusif dans le district de Tchaoudjo au Togo

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**Introduction:** Le lait maternel seul est l'alimentation de prédilection des enfants des moins de six mois puis diversifier les aliments jusqu'à deux ans. On constate cependant que ce mode d'alimentation n'est pas respecté ; d'où cette étude pour évaluer la pratique de l'allaitement maternel exclusif chez les nourrissons de 0 à 6 mois dans le district de Tchaoudjo.

**Méthodes:** Il s'agissait d'une étude transversale, descriptive et analytique déroulée du 02 mai au 29 juillet 2017 chez les mères de nourrissons de 0 à 6 mois. La technique par sondage aléatoire simple était utilisée pour choisir les cibles. L'analyse était faite avec le logiciel Epi Info 2000 version 3.5.4.

**Résultats:** L'étude a concerné 374 mères. L'âge moyen des mères était 27,5 ans dont les extrêmes 15 et 49 ans, le niveau primaire (38,8%) et les ménagères (71,1%) étaient majoritaires, 72,2 % avaient pratiqué l'AME, 53,5% avaient allaité précocement. Les facteurs influençant positivement la pratique de l'AME étaient le milieu rural, l'accouchement dans un centre de santé, assistance de l'accouchement par un personnel qualifié, la prise de décision d'allaiter au cours de la grossesse et le soutien du conjoint à l'AME.

**Conclusion:** La pratique de l'AME était de 72,2% chez les nourrissons de 0 à 6 mois à Tchaoudjo et des facteurs l'influençant étaient identifiés en vue de l'améliorer.

**Mots clés:** Allaitement, exclusif, enfant, mère, Togo.

## OC23

### Left Ventricular Geometry and Electrocardiographic Criteria in Assessing Left Ventricular Hypertrophy in Sickle Cell Anaemia Patients

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## ABSTRACT

**Introduction:** Left ventricular hypertrophy is recognized as a cardiovascular risk factor and is a known consequence of sickle cell anaemia (SCA). There are several established electrocardiographic criteria in determining left ventricular hypertrophy but these have not been validated in the sickle cell populace.

**Methods:** Electrocardiography (ECG) was done for 40 patients with SCA and 51 with haemoglobin A using QRS electrocardiogram machine. Those with systemic hypertension were excluded. Voltages, durations and intervals were measured as appropriate and recorded in a standard proforma. Analysis was made using a standard statistical software.

**Results:** Concentric LVH was found in only one woman with SCA but not in men. Eccentric LVH was found in six women with SCA and 1 man with SCA. Sokolow Lyon voltage criteria correlated positively with LV mass and was the only LVH criteria that detected concentric LVH in SCA females. However, the positive predictive value of Sokolow Lyon criteria was unacceptably low (14.3%). Concentric LV remodelling (p=0.092) and Eccentric LVH (p=0.079) showed a trend towards being more in SCA than controls (though did not attain statistical significance).

**Conclusion:** There is a need to devise new ECG criteria for detecting LVH in the SCA populace.

## OC24

### Sensibilisation et allergie à *Blomia Tropicalis* dans une population d'adultes jeunes à Parakou, Bénin

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**Introduction:** Les maladies allergiques, malgré leur ampleur croissante, mobilisent peu l'attention dans les pays aux ressources limitées plus focalisés sur les maladies transmissibles. Elles sont responsables chez les sujets sensibilisés. Les acariens domestiques font partie des allergènes les plus souvent incriminés. Parmi eux, *Blomia tropicalis* (Blot) est l'un des plus répandus en région tropicale. Ce travail avait pour objectifs d'étudier d'une part la prévalence et les facteurs associés à une sensibilisation à Blot et d'autre part, la fréquence d'une allergie respiratoire à cet acarien.

**Méthode:** Il s'agissait d'une étude transversale menée parmi les étudiants de la Faculté de Médecine de l'Université de Parakou en Juin 2019. Ont été inclus les sujets d'âge  $\geq 18$  ans ayant donné leur consentement. La taille de l'échantillon a été calculée par la formule de Schwartz et était égale à 311. Le type d'échantillonnage était un sondage stratifié équiprobable. Les sujets inclus étaient interrogés, examinés et un prick test à Derp était effectué. Une sensibilisation était retenue lorsque : i) le témoin positif était positif ; ii) le témoin négatif était négatif ; iii) le diamètre de la papule était  $>3$  mm. Une allergie respiratoire à Blot était diagnostiquée lorsqu'il y avait : i) des symptômes d'allergie respiratoire ; ii) une sensibilisation à Blot ; iii) une notion de déclenchement des symptômes par l'inhalation de poussières de maison.

**Résultats:** L'âge moyen des sujets enquêtés était de 21,67 ( $\pm 3,10$ ) ans, avec des extrêmes 16 et 32 ans. Le sex ratio était égal à 1,22. La prévalence d'une sensibilisation à Blot était de 3,54% (IC95% : 1,99 – 6,22). Après analyse multivariable, une atopie familiale rapportée à l'interrogatoire (ORa=11,94; IC95%=2,49 – 92,85; p=0,005) était associée à un risque élevé de sensibilisation à Blot; par contre, la présence d'une fenêtre au niveau de la chambre à coucher (ORa=0,08;

IC95%=0,01 – 0,50; p=0,005) était associée à un moindre risque de sensibilisation. Une allergie respiratoire à Blot a été retenue chez 2,57% (IC95%=1,31 – 4,99). Parmi ces 8 sujets ayant une allergie respiratoire diagnostiquée, 1 avait un 5 une rhinite allergique et 2 une association des deux affections.

**Conclusion:** La sensibilisation à Derp est assez fréquente parmi les sujets jeunes enquêtés. Certains ont une allergie confirmée. Les affections allergiques méritent plus d'attention dans nos pays aux ressources limitées.

## OC25

### MATERNAL GLYCEMIC PREDICTORS OF BIRTHWEIGHT: A PROSPECTIVE STUDY IN A NIGERIAN TEACHING HOSPITAL

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**Introduction:** Birth weight is an independent risk factor for development of varying endocrine and metabolic diseases in adulthood. This is determined by various factors such as glycated hemoglobin and outcomes of OGTT. There is paucity of literature on the role of glycated hemoglobin and OGTT time point diagnosis of GDM on birthweight in Nigerians.

**Objective:** To compare glycated hemoglobin and time point diagnosis of GDM as predictors of birthweight

**Methods:** The pregnant women were recruited weekly from antenatal clinic at the Lagos University Teaching Hospital (LUTH), Lagos, Nigeria. The study was a prospective open cohort study carried out from March to November 2017. All pregnant women had 75g Oral Glucose Tolerance test (OGTT) at 24 to 28 weeks gestation. The women were followed up till delivery. The data obtained were age, risk factors for GDM, packed cell volume, glycated hemoglobin and weight of newborn at delivery. The data were presented as median, percentages, chi square, odd's ratio and correlation coefficient. The p value  $\leq 0.05$  was considered significant.

**Results :** One hundred and two pregnant women were recruited in the course of the study. Eight were lost to follow up

because they delivered outside the LUTH. Using WHO 2013, IADPSG, and WHO 1999 combined diagnostic criteria, using the various time point diagnostic threshold, 2 hours post OGTT gave the highest prevalence rate of GDM. One hour post OGTT correlated best with birthweight. The odd's ratio was 27.7. This was followed by two hour post OGTT, glycated hemoglobin and then fasting plasma glucose.

**Conclusion:** Plasma glucose level especially two post OGTT should form the bedrock of diagnosis of GDM. Glycated hemoglobin can serve as a screening tool for diagnosis of GDM considering the cumbersome nature of OGTT.

## OC26

### PROGNOSIS OF STROKE IN THE ACUTE PHASE IN CNHU-HKM OF COTONOU IN 2018

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#### ABSTRACT

**Background:** Stroke is a serious disease because of its impact on the vital and functional prognosis. The objective was to study the vital and functional prognosis of stroke patients received in acute phase at CNHU-HKM (Benin). **Methods:** It was a cross-sectional study with a descriptive and analytical purpose. It took place in the CNHU-HKM emergency and neurology departments during 3 months. We included all patients admitted for documented stroke, and having occurred at least 5 days ago. They were followed-up on day (D) zero, D3, D7, D15 and D30 upon admission and assessment of their vital and functional prognosis by the NIHSS and Rankin scores. Data were analysed with SPSS software.

**Results:** The frequency of acute stroke was 3.6%, CI 95% [3%–5%]. The stroke patients were aged  $60.3 \pm 13.12$ y. Overall, patients with acute stroke experienced improvements in their NIHSS and Rankin scores over time. The mean NIHSS score

was significantly higher in patients with AVCH than in those with AVCI at day 0 (p = 0.03) and day 3 (p = 0.02). More than half of the patients (50.85%) had at least one complication during hospitalization. The 30-day death rate was 23.7%. The 7-day survival probability of a stroke patient is 0.87. The main predictors of mortality were the baseline mode of entry (p = 0.03) and the length of hospital stay greater than or equal to 10 days (p=0,01).

**Conclusion:** The poor prognosis of patients with acute stroke at CNHU-HKM is related to several factors. It is therefore imperative to act on these factors to improve the prognosis of stroke.

**Keywords:** Stroke, prognosis, acute.

## OC27

### MOSQUITOES RESISTANCE TO PYRETHROID IN ENVIRONMENT: A REBOUND OF MALARIA IN BENIN HEALTH FACILITIES?

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#### ABSTRACT

**Background:** The development of vector resistance to insecticide can reduce the effectiveness of insecticide-treated nets (ITNs), and limit progress in reducing malaria morbidity and mortality. This

study assessed the effect of vector resistance to pyrethroid on incidence of clinical malaria.

**Methods:** In 30 villages of southern Benin with high use of high use of ITNs, from 2014 to 2015, insecticide resistance was measured using the standard World Health Organization bioassay test. Malaria cases was recorded at health facilities both in the whole population using routinely collected data and in a passively followed group of children under 5 years old.

**Results :** Incidence of malaria was higher in villages with resistance frequencies above the median, either in children aged under 5 (RR = 1.27 95% CI 0.81–2.00) p = 0.276) or in individuals aged 5 or over (RR = 1.74 95% CI 0.91–3.34) p = 0.093). In passive group the same result was observed in villages with resistance frequencies above the median. (RR = 1.11 (0.52–2.35) p = 0.777). There was no association between frequency of vectors resistance and incidence of clinical malaria in southern Benin.

**Conclusion:** ITNs continue to protect partially people from clinical malaria even in insecticide resistance area but other tools are required to reduce high malaria burden.

**Keywords:** Malaria, Insecticide, Pyrethroid, Resistance, Vector.

## OC28

**Urgences hypertensives : prévalence et caractéristiques cliniques aux urgences de l'Hôpital national Donka à Conakry**

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## RÉSUMÉ

**Introduction:** L'objectif de cette étude était de déterminer la prévalence des urgences hypertensives absolues, Identifier les facteurs de risques cardiovasculaires, et de décrire la prise en charge thérapeutique.

**Méthodes:** Il s'agissait d'une étude prospective de type descriptif d'une durée de six (6) mois allant du 1er janvier au 30 juin 2019. Dans cette étude étaient inclus tous les patients âgés de 18 ans et plus admis à l'unité des urgences médicales des urgences médico-chirurgicale de l'hôpital national Donka ayant une pression artérielle  $\geq 180/110$  mmHg associée à une souffrance viscérale aigue. Les variables étudiées étaient des données épidémiologiques, cliniques et thérapeutiques ont été évaluées.

**Résultats:** Parmi les 1833 Patients admis à l'unité médicale au cours de la période d'étude 98 cas d'urgences hypertensives absolues ont été identifié soit une prévalence de 5,35%. L'âge moyen des patients était de 56,5 ans extrêmes 20 et 95, la sex-ratio était de 1,51 en faveur des hommes. Les facteurs de risques cardiovasculaires retrouvés étaient : HTA (36,84%), âge (25,26%), sédentarité (10%), diabète (10,53%), tabagisme (6,32%), excès de poids (7,89%), dyslipidémie (3,16%). Les entités nosologiques retrouvées étaient : accidents vasculaires cérébraux 55 cas (56,12%), d'œdème aigu du poumon 24 cas (24,49%), encéphalopathie hypertensive 14 cas (14,29%), d'insuffisance rénale aigue 04 cas (4,08%) et de syndrome coronarien aigu 1 cas (1,02%). Les médicaments les plus prescrits à l'admission étaient : le sérum salé 0,9% (40,85%), les Inhibiteurs de l'enzyme de conversion (25,35%), les diurétiques (16,19%) et l'oxygénothérapie (6,34%).

**Conclusion:** Les urgences hypertensives absolues constituent une pathologie préoccupante avec une prévalence élevée aux urgences médico-chirurgicales de l'hôpital national Donka. Les FRCV étaient dominés par l'HTA et l'âge.

**Mots clés:** Hypertensive artérielle-prévalence- mortalité-urgences.

## OC29

**PATIENT SAFETY IN A RESOURCE-CONSTRAINED CONTEXT: A CROSS-SECTIONAL STUDY OF EXPERIENCE, ATTITUDE, PROMOTERS, BARRIERS AND PREVENTIVE MEASURES FOR PATIENT SAFETY INCIDENTS AMONG MEDICAL PRACTITIONERS IN ABIA STATE, NIGERIA**

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## ABSTRACT

**Introduction:** Globally, safety of patients in healthcare environment has been an issue of the decade especially in resource-constrained settings. The Hippocratic maxim *primum non nocere* requires medical practitioners to give utmost importance to the principle of beneficence and safety in attending to patients. It is a current paradigm in quality of care metrics that determines what happens to patients who interface with the healthcare system. **Aim :** The study was aimed at describing the experience, attitude, promoters, barriers and preventive measures for patient safety incidents in a cross-section of medical practitioners in Abia State, Nigeria. **Methods:** This was a cross-sectional descriptive study carried out on 185 medical practitioners in Abia State, Nigeria. Data collection was done using pretested, self-administered questionnaire that elicited information on experience, attitude, promoters, barriers and preventive measures for patient safety incidents.

**Results:** The age of the respondents ranged from 25–72(36±5.6) years. There were 163(88.1%) males. All the medical practitioners (100%) reported at least one lifetime committal of patient safety incidents with the most committed safety incident being medication safety concerns. One hundred and fifty-two (82.2%) had positive attitude to patient safety. The commonest promoter and barrier to patient safety incidents were physician stress(burnout) (100%) and communication & feedback barrier (100%) respectively. The most common preventive measure was patient safety incident reporting system (100%). Lifetime committal of patient safety incidents was associated with years of

practice > 10 years. (P<0.05).

**Conclusion:** Patient safety incidents occurred among the study respondents with the most committed safety incident being medication safety concerns. The attitude was largely positive while the commonest promoter was physician burnout. The commonest barrier and preventive measures were communication & feedback barrier and patient safety incident reporting system respectively.

### OC30

#### SERUM URIC ACID AND LEFT VENTRICULAR HYPERTROPHY IN HYPERTENSIVE PATIENTS IN ADO-EKITI

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**Abstract Introduction:** Systemic hypertension is a foremost risk factor for cardiovascular morbidity and mortality. Its actions are manifested on organs like the brain, heart and kidneys. High serum uric acid (SUA) escalates cardiovascular vulnerability in patients with systemic hypertension.

**Aim:** To assess the association between SUA in hypertensives and left ventricular hypertrophy (LVH) in clinic treated patients.

**Patients and Methods:** A cross sectional study was performed in 271 (178 females, 93 males) patients with systemic hypertension. Two hundred and seventy one healthy age and sex matched non-hypertensive persons obliged as controls. LVH was estimated by echocardiography. Blood samples collected for measuring uric acid levels.

**Results:** Mean SUA was significantly higher among the hypertensive patients (371±125 µmol/L) than in the controls (269 ±101.4 µmol/L; p<0.001), and the prevalence of hyperuricemia was 46.9%

among the hypertensives and 11.1% among the controls (P<0.001). Independent predictors of SUA were class of systemic hypertension, left ventricular mass index (LVMI), body mass index (BMI) and age. However, class of hypertension was the best independent predictor of SUA levels in the multivariate regression model (β=0.597). Linear regression revealed SUA levels ≥430 µmol/l as a predictor of stage 2 hypertension (F=26.620, p=<0.001). Among the hypertensive patients, LVH was present in 39.3% of those with hyperuricemia and in 28.0% of those with normal SUA levels (p=0.003) **Conclusion:** Results indicate serum uric acid is positively correlated with hypertension and a reliable indicator of LVH in study population.

**Keywords:** Serum Uric Acid, Systemic Hypertension, Predictors, Target Organ Damage, LVMI.

### OC31

#### DOCTORS' KNOWLEDGE, COMPREHENSION, ATTITUDE TO AND APPLICATION OF ETHICAL PRINCIPLES IN CHILD HEALTH-CARE IN A NIGERIAN TEACHING HOSPITAL

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#### ABSTRACT

**Introduction:** Due to the prevailing socio-cultural and religious affiliations, Paediatricians in Sub-Saharan Africa face unique ethical dilemmas. An understanding and application of the six ethical principles can help resolve these dilemmas, enhance care in a pro-active manner and improve child health indices. **Aim:** The aim of this study was to determine the knowledge, attitude and practical applications of the six ethical principles by child-care doctors at the University of Port Harcourt Teaching Hospital (UPTH).

**Methods and Material:** This is a questionnaire-based study. Information on Socio-demographics, knowledge of the ethical principles, attitude of the respondents towards medical ethics and

its utilisation by the doctors was sought. Statistical analysis used: Data were analyzed using descriptive statistics. **Results:** 294 doctors participated in this study. The mean percentage knowledge score of the six ethical principles was 29.6±15.8, which was significantly higher among doctors in Paediatrics (36.5±17.5, p=0.001). For every increase in professional rank, the score increased by 3.274 (95% CI 0.806 – 5.743; p=0.010). They had a high mean percentage score on attitude towards ethics, 74.7±16.3, with a lower practice score of 44.7±29.4. Majority (69%) encountered less than one dilemma a month, discharge against medical advice being the most common [160 (78.8%)]. More than 90% of them encountered ethical dilemmas involving the principles of Autonomy, Paternalism and Non-maleficence [200 (98.5%), 189 (93.1%) and 184 (90.6%) respectively] with those relating to Fidelity being the least.

**Conclusion:** Most respondents have a low level of knowledge of the six ethical principles. The higher practice rate suggested a knowledge-practice gap. Their excellent attitude implies willingness at improving their knowledge and practice.

**Keywords:** Ethical principles, Knowledge, Attitude, Practice, Child healthcare.

### OC32

#### INDIVIDUAL AWARENESS AND TREATMENT EFFECTIVENESS OF HYPERTENSION AMONG OLDER ADULTS IN GHANA: EVIDENCE FROM THE WORLD HEALTH ORGANIZATION STUDY OF GLOBAL AGEING AND ADULT HEALTH WAVE 2

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#### ABSTRACT

**Background:** Hypertension, the principal modifiable risk factor for cardiovascular



diseases remains a major cause of health loss in all regions of the world and has been ranked together with associated cardiovascular diseases as the largest contributor to the global burden of diseases. Hypertension affects all socioeconomic classes and there are significant disparities across the various socioeconomic classes. These disparities affect the prevalence of its awareness, treatment and control in older adults. The aim of this study was to report the prevalence of hypertension, its awareness and treatment effectiveness among older adults (aged 50 years and above) in Ghana.

**Methods:** This study uses data from the World Health organization's (WHO) Study on Global Aging and Adult Health (SAGE) wave 2 data. Information on self-reported hypertension as well as measured hypertension was analyzed. The level of awareness regarding hypertension and the effectiveness of treatment was determined using descriptive statistics. Factors associated with an individual's awareness of their hypertensive status were determined using Chi square test and the predictors of unawareness of hypertension were determined using logistic regression analysis.

**Results:** Information on 3,575 adults in Ghana aged 50 years or older was included in this analysis. The mean age of study participants was  $65.1 \pm 10.7$  years with 59% being female. The prevalence of self-reported hypertension was 16.2% while that for measured hypertension was 50.7%. The overall prevalence of older adults in Ghana who were hypertensive but were not aware of it was 35%. Of the 332 individuals who self-reported being hypertensive, only 74 (21%) were on any form of treatment, with only 17 (18%) having their blood pressures well controlled.

**Conclusion:** Approximately half of all older adults in Ghana have elevated blood pressures. Most of these are not aware of their elevated blood pressure and for those who are aware, very few are on treatment and even fewer of those on treatment have their blood pressure well controlled. Structured national population level screening and health promotion for elevated blood pressure by

Ministry of Health/ Ghana Health Service is worthy of consideration.

**Keywords:** Self-reported hypertension, measured hypertension, WHO SAGE study, Ghana, Older adults.

### OC33

#### PREVALENCE OF OCCUPATIONAL ACCIDENTS AMONG HEALTH CARE WORKERS IN PRIMARY HEALTH FACILITIES IN ENUGU METROPOLIS, NIGERIA

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**Introduction:** Injuries from sharp devices are associated with the transmission of more than 40 pathogens including Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), HIV, Lassa fever and other hemorrhagic fevers, thereby increasing the risk and burden of infectious diseases. Safe injection practice is defined by WHO as an injection that does not harm the recipient, does not expose the provider to any avoidable risks and does not result in waste that is dangerous for the community. Yet breaks in infection control practices are common causing severe infections which put human lives at risk.

**Methods:** This descriptive cross sectional study employed both quantitative and qualitative methods. Two hundred eligible health care workers (HCWs) directly involved in patient care were used for the study. A pre tested self administered questionnaire was used to collect the quantitative data while an in depth interview (IDI) was used to collect the qualitative data. The quantitative data was analysed using SPSS version 22 with the significance level placed at  $p < 0.05$  while manual content analysis was done for the qualitative data.

**Results:** The proportion of HCWs that have had exposure of their mucous membranes to blood/body fluids in the past 6 and 12 months were 17.5% and 27.0% respectively while the mean

number of exposures were  $2.94 \pm 2.388$  and  $3.19 \pm 2.875$  respectively. Similar proportion had needle stick and sharps injury in the past 6 (16.5%) and 12 (22.0%) months while the mean number of injuries were  $2.73 \pm 1.875$  and  $2.98 \pm 2.074$  respectively. The major circumstances under which they got injured were giving injection, breaking injection ampoule and recapping of needles. Emergent themes from the IDI were recapping of needles, giving injections and improper disposal of sharps.

**Conclusion:** The prevalence of occupational accidents is high considering the dangers associated with these accidents.

**Keywords:** Occupational Accidents, Health Care Workers, Enugu Metropolis.

### OC34

#### COMMON CO-OCCURRING MENTAL DISORDERS AMONG IN-PATIENTS IN A SUBSTANCE USE DISORDER TREATMENT CENTER IN PLATEAU STATE, NORTH CENTRAL NIGERIA

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**Introduction:** Patients with psychoactive substance use disorders often have co-occurring medical and mental disorders. This occurs as a result of a number of factors, for instance, drug abuse may facilitate the full expression of a latent psychiatric disorder; mental disorder may lead to SUD (drugs used for self-medication); or both SUD and mental disorders are caused by the same underlying brain deficit such as a genetic vulnerability, etc.

**Methods:** After obtaining ethical clearance, the case notes of all patients who were on admission in the Centre for Addiction Treatment and Research, (CATR) Vom, Plateau state throughout the month of June 2019 were traced and relevant data collected and analyzed.

**Results:** A total of thirty-eight (38) in-

patients with were analyzed. Twenty eight percent (28%) of the SUD patients had co-occurring depression, eight percent (9%) had anxiety disorder, and five percent (5%) had Post Traumatic Stress Disorder (PTSD) in addition to their substance use disorder.

**Conclusion:** In line with SDG goal 3.5 which seeks to “strengthen prevention and treatment of substance abuse including narcotics drug abuse and harmful use of alcohol”; identifying common co-occurring mental disorders among patients with substance use disorders (i.e depression, PTSD & anxiety disorders in this study) is one way of moving closer towards achieving this SDG

### OC35

#### **Vécu socio-économique de la maladie rénale chronique chez les hémodialysés du Centre National Hospitalier Universitaire Cotonou (Benin) en 2018**

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#### **RESUME**

**Introduction:** La maladie rénale chronique (MRC) constitue aussi un véritable handicap économique et un frein au développement.

**Objectif:** Etudier l'influence socio-économique de la MRC chez les hémodialysés du Centre National Hospitalier et Universitaire (CNHU) de Cotonou (Bénin) en 2018.

**Méthode:** Il s'agissait d'une étude transversale descriptive réalisée du 1er Juillet au 31 Août 2018 et a porté sur les patients en hémodialyse chronique du CNHU de Cotonou. Etaient inclus les patients en hémodialyse depuis plus de trois mois, âgés de plus de 18 ans, volontaires, capables de répondre aux questions et ayant donné leur consentement. L'échantillonnage était exhaustif. L'influence socio-économique a concerné le manque d'activité

génératrice de revenu ou du frais d'hébergement ou des soins médicaux ou insuffisance alimentaire en famille ou difficulté de se vêtir et la famille.

**Résultats:** Au total 110 patients ont été colligés. L'âge moyen était 47,19± 11,34 ans [extrêmes de 22 ans et 78 ans]. La sex-ratio était 1,9. L'ancienneté moyenne en hémodialyse était de 6,61±5,02 ans. Parmi des hémodialysés 81% avaient au moins une personne à charge. Comme sources de revenus, respectivement 46,36% et 16,36% se supportaient grâce à leurs occupations et aux membres de leur famille. Sur le plan socio-économique, 74,55% des patients sollicitaient des aides, 57,04% affirmaient avoir eu une limitation physique du fait de la maladie rénale chronique, 48,10% avaient perdu leur emploi initial, 40,00% avaient changé leur statut socioéconomique, 64,55% manquaient d'activité génératrice de revenus. Respectivement 46,36%, 42,73%, 25,45% et 14,55% des hémodialysés avaient des difficultés à se nourrir, de se soigner de se vêtir et de se loger.

**Conclusion:** L'hémodialysé chronique subit assez d'influences socio-économiques liées à la MRC d'où l'intérêt d'une prise en charge intégrée.

**Mots clés:** Hémodialysés, vécu socio-économique, Bénin.

### OC36

#### **TOOBUSYTOEAT:ACLOSERLOOK AT MEAL SKIPPING AMONG UNDERGRADUATE STUDENTS IN SAGAMU NIGERIA**

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**Introduction:** Diet-related non-communicable diseases have received more attention on the global health scene in recent times. Meal skipping is a documented unhealthy practice associated with obesity, poor dietary choices and development of chronic

diseases. Undergraduate students are predisposed to skipping meals for several reasons. This study therefore determined the prevalence of meal skipping among undergraduate students in Sagamu. Southwest Nigeria.

**Methods:** A cross-sectional study was conducted among 350 undergraduate students of the College of Health Sciences, Olabisi Onabanjo University, Sagamu campus, Nigeria, selected via multi-stage sampling. Data were collected using a validated semi-structured, self-administered questionnaire and analyzed with SPSS 20.0. Relevant descriptive and inferential statistics were calculated, with level of significance (p) set at <0.05. Participation was fully voluntary.

**Results:** The mean age of respondents was 23.4 ±2.3 years. The prevalence of meal skipping was 92% ; breakfast was most frequently skipped (82.6%), while lunch was least skipped (1.7%). Reasons for skipping meals included : busy schedules (82.3%); desire to lose weight (9.4%); food rationing (16.3%); inability to cook (10%). Meal skipping was associated with poor concentration at school, mood swings, irritable behavior, reduced comprehension and body mass index (p<0.05).

**Conclusion:** Meal skipping was highly prevalent among undergraduate students in Sagamu. Breakfast was most often skipped. Adequate nutrition education on healthy eating and health promotion activities are necessary to reduce the prevalence of this unhealthy practice.

### OC37

#### **THYROID FUNCTION PROFILE OF HIV/AIDS PATIENTS IN KANO, NORTHWEST NIGERIA**

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## ABSTRACT

**Background:** Human Immune Deficiency Virus (HIV) infection/Acquired Immune Deficiency Syndrome (AIDS) is known to be associated with several endocrinopathies. Consequently, thyroid gland is a prime target organ that may be affected by the virus, opportunistic infections, or medications that are used in the care of patients afflicted with HIV/AIDS.

**Objective:** This cross-sectional study was primarily aimed at determining the thyroid hormone profile and pattern of thyroid function abnormalities among HIV/AIDS patients in Kano, Northwest Nigeria.

**Methods:** The study recruited a total of two hundred and Ten (210) subjects made up of seventy (70) HIV positive HAART treated patients (group I), seventy (70) HIV positive HAART naïve patients (group II) and 70 apparently healthy controls (group III). An interviewer-administered structured questionnaire was used to collect information on bio data, medical history, duration of diagnosis of HIV infection and HAART regimen. Blood samples were collected for the measurement of serum FT3, FT4, and TSH. The results obtained from this study were analysed using STATA statistical package, version 13.

**Results:** Of all the studied subjects, 66.2% were euthyroid while 33.8% had some forms of thyroid dysfunction. The prevalence of thyroid dysfunction among the various groups studied were 55.7%, 42.9% and 2.8% for groups I, II and III respectively.

**Conclusion:** Thyroid dysfunction was commoner among HIV-positive subjects than HIV-negative controls. HIV-positive patients on HAART had higher prevalence of thyroid dysfunction than HIV positive HAART naïve patients.

**Keywords:** HIV/AIDS, HAART, Subclinical hypothyroidism, TSH.

## OC38

### PREVALENCE OF MICROALBUMINURIA IN CHILDREN WITH SICKLE CELL ANAEMIA IN STEADY STATE SEEN AT AHMADU BELLO UNIVERSITY TEACHING HOSPITAL, ZARIA

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**Background:** Renal disease among subjects with sickle cell anaemia is a major comorbid condition that can lead to premature death. Subjects with sickle cell anaemia develop proteinuria and renal impairment that over time could progress to chronic kidney disease. Microalbuminuria is an initial marker of renal disease that progresses to overt proteinuria and chronic kidney disease.

**Objective:** To determine the prevalence of microalbuminuria in children with sickle cell anaemia in steady state and evaluate any relationship between microalbuminuria and sex.

**Subjects and Methods:** Cross sectional study of children attending the clinic was analysed. All children and/or their caregivers were informed of the research, consent obtained and answered a standardized questionnaire. Microalbuminuria was analysed in spot urine using the Micral test strips.

**Results:** One hundred and ninety-five children with sickle cell anaemia in steady state aged between 2 and 16 years participated in the study. One hundred and fourteen subjects (58.5%) were males and 81 (41.5%) were females, giving male : female of 1.4: 1. The prevalence of microalbuminuria was 15.9 %. The prevalence of microalbuminuria was slightly more in males (51.6 %) compared to females (48.4 %), although not significant (p= 0.399). The prevalence of microalbuminuria increased with age.

**Conclusion:** The prevalence of microalbuminuria is sufficiently high in children with sickle cell anaemia to warrant routine screening. There was no relationship between microalbuminuria and sex of children with sickle cell anaemia in the study.

**Keywords:** Microalbuminuria, Children, Sickle Cell Anaemia, Prevalence.

## OC39

### THE IMPACT OF EBOLA EPIDEMIC ON MEDICAL WARD ADMISSIONS AT THE JOHN F KENNEDY MEDICAL CENTER, MONROVIA, LIBERIA

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## ABSTRACT

**Background:** During the Ebola Epidemic in Liberia, as a means of prevention, some health facilities including the John F. Kennedy Medical Center were closed to general admissions for some time and reopened after the epidemic.

**Objective:** To establish if there was an impact on the patterns of admissions and deaths pre-Ebola Epidemic and post-Ebola Epidemic In Liberia over a 6 months evaluation in each period.

**Methods:** This was a retrospective comparative study of all adult patients admitted to the medical ward of the John F Kennedy Medical Center for the period October 2013–June 2014 and the post Ebola outbreak period of May to October 2015. Medical records for all admissions to the medical ward were reviewed and analyzed with comparison between the two periods.

**Results:** Pre-Ebola epidemic, 358 patients were admitted. There were 203 males (56.2%) and 147 females (43.78). The ages range from 14 to 90 years. The length of hospital stay ranged from 5 minutes to 35 days. The leading causes of admission during this period were HIV/AIDS related 18.5%, stroke 15.2%, complications of diabetes mellitus 14.1%, and heart failure 9.8%. The leading causes of deaths were HIV/AIDS related 18.7%, Stroke 18.0% and diabetes mellitus complications 16.2%. The mortality for the period was 109 (30.4%). Deaths under 48 hours were 54. This represents 15.1 % of admissions and 49.5 % of deaths. There were 3 discharges against medical advice. Comparatively, during the post-Ebola period, 318 patients were admitted with 172 (54.1%) males and 146 (45.9%) females. The age range was 14 to 85 years. The average hospital stay was less than less than 5

minutes to 10 days. The leading causes of admission were HIV/AIDS related 15.3%, stroke 14.1%, complications of diabetes mellitus 11.2%, heart failure 8.9%. The leading causes of deaths were stroke 15.1%, HIV/AIDS 14.7%, stroke 11.4% and diabetes mellitus 8.6%. There were 73 deaths which accounts for 22.9% of admission. 23 of these deaths occurred less than 48 hours after admissions which represent 7.2 % of all admissions and 31.5% of all deaths during this period. There were 10 discharges against medical advice.

**Conclusion:** There is no significant difference in the patterns between admission and deaths during the periods before and after the Ebola epidemic. HIV/AIDS and non-infectious diseases were among leading causes of admissions and deaths.

#### OC40

##### Lymphangiome kystique cervical : à propos d'un cas à Sokodé (Togo)

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**Introduction:** Les lymphangiomes sont des dysplasies congénitales très rares développées aux dépens des vaisseaux lymphatiques. Nous rapportons un cas de lymphangiome kystique de localisation cervico-faciale diagnostiqué à la naissance au Centre Hospitalier Régional de Sokodé (région centrale, Togo).

**Observation:** Il s'est agi d'un nouveau-né de 8 jours reçu en consultation pédiatrique au Centre Hospitalier Régional de Sokodé pour une tuméfaction cervico-faciale. La mère a réalisé trois consultations prénatales. L'échographie obstétricale n'a pas révélé d'anomalies foetales. La grossesse a été menée à terme, l'accouchement effectué

à domicile. A l'examen, le nouveau-né était de sexe féminin pesant 3 160 g : une volumineuse tuméfaction sous-mandibulaire, symétrique, non douloureuse, de consistance molle, s'étendait aux pommettes. Elle était recouverte d'une peau saine. Une échographie de la tuméfaction a été réalisée et a permis de mettre en évidence, une masse kystique, bien limitée à paroi fine, multiloculaire séparée par de fines cloisons. Le diagnostic d'un lymphangiome kystique hémorragique a été évoqué. La cure chirurgicale a été favorable.

**Conclusion:** Tumeurs bénignes rares, les lymphangiomes kystiques sont de diagnostic essentiellement échographique et de bon pronostic après une intervention chirurgicale précoce.

**Mots clés:** Lymphangiome, kystique, cervical, Togo.

#### OC41

##### Situation de l'approche "hôpitaux promoteurs de la santé" au Bénin : cas du Centre Hospitalier Départemental CHD-Atacora

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#### RÉSUMÉ

**Introduction:** Le patient est le résultat des conditions dans lesquelles il est conçu, né, vit, grandit, travaille et vieillit. Il est un messenger qui apporte cette information au soignant dans le cadre de sa maladie, ce qu'un "hôpital promoteur de la santé" (HPS) reconnaît. L'objectif était de décrire les perceptions et pratiques de l'approche HPS par les acteurs du CHD-Atacora.

**Méthodes:** L'échantillonnage a été accidentel, basé sur la prise en compte systématique de cibles rencontrées, constituées du personnel de l'hôpital toutes catégories confondues, des acteurs communautaires et des patients/ accompagnants, pour une taille prévue de 315. Les données ont été collectées de février à juillet 2019.

**Résultats:** Au total, 301 sujets ont été enregistrés, soit un taux de recrutement de 95,55%. Les enquêtés avaient une mauvaise connaissance de l'approche HPS (92,36%). Ils reconnaissent (81,40%) qu'il faut une organisation de l'hôpital pour le suivi du patient dans sa communauté et son domicile. Ils (84,72%) ne comprennent pas pourquoi les décisions concernant leur santé émanent du ministère qui ne comprend et ne vit pas les mêmes réalités qu'eux. Ils avaient un niveau de perception approximative (88,70%) de l'HPS et de pratiques inadéquat (91,03%).

**Conclusion:** Les acteurs de l'hôpital ne tenant pas compte des déterminants sociaux de la santé dans la prise en charge du patient, l'atteinte des Objectifs du développement durable (ODD) à l'échéance de 2030 par le Bénin est peu probable, à moins d'apporter un changement important dans ce secteur à travers le positionnement de la promotion de la santé.

**Mots clés:** Déterminants sociaux de la santé, Objectifs du développement durable, Hôpitaux promoteurs de la santé, Bénin.

#### OC42

##### BIOCHEMICAL ASSESSMENT OF CARDIOVASCULAR RISK ASSOCIATED WITH THE DURATION OF ANTIPSYCHOTIC THERAPY IN PATIENTS WITH SCHIZOPHRENIA

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**Introduction:** Dyslipidaemia is a complication of many antipsychotics and is a known risk factor for cardiovascular disease (CVD). Identifying dyslipidaemia

which may arise during the course of antipsychotic therapy offers the possibility of reducing the sequela of CVD. This study investigated the effect of duration of antipsychotic therapy on cardiovascular risk (CVR) using biochemical techniques.

**Methods:** This was a longitudinal study involving 44 participants recruited through systematic random sampling. Four samples were taken from each participant commencing before the onset of antipsychotic therapy and repeated at monthly interval for three consecutive months. Lipids and apolipoprotein B-100 (apo B-100) were analysed using an automated chemistry and semi-automated protein analyser respectively. **Results:** The baseline serum lipids and apo B-100 were all within reference limits. A significant monthly increment in all lipid levels was observed with dyslipidaemia by the second month of antipsychotic therapy. There was a relationship between the duration of therapy and serum levels of lipids and apo B-100. There was also an association between the duration of therapy and a higher CVR. The TC/HDL-C ratio was a better indicator of a high CVR compared to apo B-100 and traditional lipid profile fractions.

**Conclusion:** Findings suggested that the duration of therapy was associated with development of dyslipidaemia and a higher CVR. The TC/HDL-C ratio performed better than apo B-100 and individual lipid profile fractions in the evaluation of CVR even in the absence of evidence of dyslipidaemia. The study concluded that the duration of antipsychotic therapy had an effect on CVR in people with schizophrenia.

#### OC43

### EPISODES OF DIARRHOEA ASSOCIATED WITH HAND WASHING PRACTICES AMONG SCHOOL CHILDREN IN ABAKALIKI: CONTRIBUTIONS OF POOR WATER SUPPLY AND LACK OF ENABLING ENVIRONMENT

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**Introduction:** Hand washing in children is important before eating, after defecating, wiping a child's bottom and touching a sick person. Diarrhoeal diseases are transmitted feco-orally making hand washing a habit that can stop transmissions. This study aimed at determining the contributions of inadequate water supply and lack of enabling environment to the number of episodes of diarrhoea suffered among school children in Abakaliki.

**Methods:** This was a descriptive cross-sectional study done in a primary school in Nkwoagu community. The population included pupils from primary 1 to 6. A total of 197 pupils drawn by systematic random sampling after stratifying them into classes with proportionate allocation participated in the study after consent from their teachers. A pre-tested, semi-structured, interviewer administered questionnaire was used to collect information from the respondents. Data was analysed with epi info version 7 which provided proportions while inferential statistics calculated was significant at P value of less than 0.05.

**Results:** The younger age group 5–11 were 190(96.5%) while the older age group 12–15 were 7(3.5%). Males were 106(53.9%) while females were 91(46.1%). Frequency of hand-washing after each critical points were; always 149(75.7%), frequently 25(12.7%), rarely 22(11.2%), and never 1(0.5%). Those who have had diarrhoea in the last three months before the survey were 107(54.3%). Episodes of diarrhoea were as follows: 1–2(45.8%), 3–4(26.2%) and 5 and above (28.0%). Reasons for not washing hands always included lack of water, soap and the feeling that hand washing was not necessary. There was a strong association between having episodes of diarrhoea and the reasons for not washing hands, P = 0.000. Regression model showed no predictors of diarrhoea.

**Conclusion:** Lack of water, soap and feeling that hand washing was not necessary were contributory to episodes of diarrhoea among school children.

**Keywords:** Diarrhoea, children, hand washing, water supply.

#### OC44

### EVALUATION OF THE KNOWLEDGE OF MENTAL HEALTH FIRST AID AMONG WORKERS MANNING SICK BAYS IN SCHOOLS IN EGOR LOCAL GOVERNMENT AREA OF BENIN CITY, NIGERIA

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#### ABSTRACT

**Background:** Mental Health First Aid (MHFA) is an extension of the concept of first aid to cover mental health conditions. It is the help offered to a person developing a mental health problem, experiencing a worsening of an existing mental health problem or in a mental health crisis. Efficient performance of first aid duty is dependent on a good knowledge of sick bay personnel about mental health conditions and MHFA techniques. Therefore, this study seeks to determine the knowledge of sick bay personnel about MHFA prior to their training.

**Methods:** A cross-sectional observational study in which group of personnel who were in charge of sick bays in some of the primary and secondary schools in Egor Local Government Area (LGA) in Benin City were invited for the monthly seminar of the Institute of Child Health, University of Benin in which MHFA was incorporated. A structured questionnaire was administered to the 24 participant present, which was designed to evaluate component parts of MHFA as applicable to the training they were to undergo.

**Results:** It was shown that 62.5% of the respondents do not know about MHFA, while 54.2% of the participants have not seen a child with a psychiatric emergency

before. Furthermore, 62.5% of the respondents do not know how to assess the risk of suicide. The majority (66.7%) could not identify the components of MHFA among a list of options.

**Conclusion:** It was concluded that there is a dearth of knowledge on MHFA among the study participants. There is a need to train all workers in the health care facilities of schools on MHFA.

**Keywords:** Knowledge, Mental Health First Aid, Sick bay.

#### OC45

### IMPETIGO HERPETIFORMIS: ARARE GESTATIONAL DERMATOSIS: A CASE REPORT

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#### ABSTRACT

**Background:** Impetigo herpetiformis otherwise known as “pustular psoriasis of pregnancy” is a rare pustular gestational dermatosis that typically starts during the last trimester of pregnancy. The condition usually resolves during peuperium but may reoccur with subsequent pregnancies. It is a rare disease with only about 200 cases reported worldwide in 2017. Impetigo herpetiformis may lead to increase morbidity and mortality in both the mother and the feotus.

**Case presentation:** A 27-year-old primi-gravida presented at 27 weeks gestation with 2 weeks history of generalized itchy, painful skin rashes that started from the chest but later progressed to involve the face, eyes, oral and nasal mucosa but spares the nails, palms and soles of the foot. Examination revealed wide spread erythematous plaques, surrounded by layers of grouped pustules. There was erosion of buccal and nasal mucosa. Investigation showed leucocytosis with significant neutrophilia, raised ESR, hypo-albuminaemia and hypocalcaemia.

Skin biopy result revealed parakeratosis with subcorneal and intraepidermal neutrophil abscesses consistent with pustular psoriasis.

The patient was managed with 60mg of prednisolone daily, triamcinalone acetonide cream and cefuroxime tablets 500mg twice daily. At 36 weeks gestation she delivered live female twins.

**Conclusion:** Impetigo herpetiformis is a rare form of generalised pustular psoriasis that occurs in the last trimester of pregnancy. It may be associated with increase morbidity and mortality in both mother and feotus. The condition can be successfully treated with topical and systemic steroids.

**Keywords:** Impetigo Herpetiformis, Pustular Psoriasis, Gestational Dermatosi.

#### OC46

### Etats des lieux des infections ostéoarticulaires de 2010 à 2015 au service de chirurgie pédiatrique de l'hôpital national Donka

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**Introduction:** L'objectif de cette étude était d'étudier le profil socio-démographique, les caractéristiques cliniques et thérapeutiques des infections osseuses et articulaires (IOA) de l'enfant au service du CHU Donka

**Methodes:** Il s'agissait d'une étude rétrospective, descriptive et analytique sur 6 ans ciblant les enfants de 0 à 18 ans, hospitalisés pour infection ostéo-articulaire au service de chirurgie pédiatrique de l'hôpital national Donka du CHU Conakry.

**Resultats:** Du 1er janvier 2010 au 31 décembre 2015, 121 enfants étaient admis pour IOA et 27 % avec uniquement deux cas en 2014. L'âge moyen était de 5 ans 3 mois et un sex-ratio H/F = 1.9. Les atteintes articulaires pures 45 cas (37.19%) et les atteintes osseuses 76 cas (62.81 %) associée ou non à une atteinte articulaire étaient les types d'infections

ostéoarticulaires. La drépanocytose existait chez 41 patients (33.88%). La bactériologie est positive dans 84,4 % avec le *Staphylococcus aureus* (62.50%), *Klebsiella pneumoniae* (6.30%), *Klebsiellasp* (3.12%). Les anomalies radiologiques (66.30%) étaient associées aux infections osseuses ( $p < 0.0001$ ). Les anti-inflammatoires avaient été prescrit dans 15.70% des cas. L'antibiothérapie initiale IV avec la Ceftriaxone pour une durée moyenne de 15 jours et relais per os avec lincomycine dans 64.86 % des cas. La durée médiane d'évolution était de 30 jours chez les drépanocytaires et de 14 jours chez les non drépanocytaires. Au total 4.54% des enfants était décédés.

**Conclusion:** Une prise en charge précoce avec une antibiothérapie adaptée, réduirait les complications et la létalité.

**Mots clés:** Infection ostéo-articulaire, complications, prise en charge.

#### OC47

### Tétanos de l'enfant au service de pédiatrie de Kamsar en république de Guinée

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#### RÉSUMÉ

**Objectif:** Cette étude visait à analyser le profil clinique, le traitement, les complications, les résultats et les facteurs prédictifs de la mortalité chez les enfants admis à l'hôpital entre 2014 et 2018.

**Méthodes:** Nous avons inclus rétrospectivement tous les enfants de moins de 17 ans admis à avec un diagnostic de tétanos entre janvier 2014 et décembre 2018. Nous avons collecté les informations suivantes : caractéristiques démographiques, source de données, exposition, entrée par le portail,

statut de vaccination, durée de l'incubation, caractéristiques cliniques, gravité, durée de séjour à l'hôpital, complications à l'admission et résultats à la sortie.

**Résultats:** Cette étude avait montré que la fréquence du tétanos parmi les diminuait graduellement de 1,40% (12 cas/853 admissions) en 2014 en 0,31% (10 cas/1305 admissions) en 2018. Le tétanos néonatal représentait 57% des cas et 64 % était des garçons avec un sexe ratio était de 1,7. 21% des mères n'avaient effectuée aucune CPN et 43 % n'était Pas vaccinées contre le tétanos. L'ombilique était la porte d'entrée la plus fréquente (51%) 54% était classe sévère selon le score de Dakar. La létalité était de 54%.

**Conclusion:** Le tétanos est toujours un problème de santé publique commun associé à une mortalité élevée en Guinée. La stratégie de l'OMS pour l'élimination du tétanos maternel et néonatal recommande de promouvoir des pratiques d'accouchement sans maladies, la vaccination systématique des femmes enceintes et des femmes en âge de procréer.

**Mots clés:** Tétanos, enfants, Kamsar, Guinée.

#### OC48

### ANTHROPOMETRIC DETERMINANTS FOR RISK OF TYPE 2 DIABETES MELLITUS AND IT COMPLICATIONS AMONG OVERWEIGHT/OBESE ADULTS IN A NUPE COMMUNITY IN NORTH-CENTRAL NIGERIA

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**Introduction:** Although abdominal adiposity measured by anthropometric indices such as waist-height ratio

(WHtR), waist circumference (WC) and waist-hip ratio (WHR) is a well-established risk factor for Type 2 diabetes mellitus (T2DM) and its emergencies, its association with T2DM among the overweight/obese adults is less well characterized. The performance of these adiposity indices in determining the risk of T2DM was inconclusive ; it is population dependent and varies with ethnic groups.

**Objective:** To determine which of the abdominal adiposity indices best predict the risk of type 2 diabetes mellitus in overweight/obese adults in a Nupe community setting.

**Materials and Methods:** We evaluated associations of WHR, WC, and WHtR with risk of T2DM in a hospital based cross-sectional study of 388 overweight/obese patients aged between 18 and 64 years with anthropometric measurement taken at presentation in the General Outpatients Clinic in 2012. Blood sample was taken for Fasting Blood Glucose determination and Incident T2DM was ascertained by linkage with vital statistics registries. Descriptive, bivariate and multivariate logistic regressions were employed to determine the best possible predictor of risk for T2DM and its complication.

**Results:** Cutoffs among these subjects (according to the International Diabetes Federation ethnic-specific criteria) for WHR is 1.0 or more for males and 0.9 or more for females, WC is 94–101.9cm for men and 80–87.9cm for women and WHtR is 0.5 for both sex. Among the selected anthropometric indices, WHR was positively and significantly associated with risk of T2DM (*P* values <0.05). The analysis of independent relationship between the anthropometric indices and odds of having T2DM showed that the WHR is a predictor for T2DM.

**Conclusion:** Increasing levels of WHR among overweight/obese patients consistently predict increased risk of T2DM in predominantly Nupe populations. Therefore WHR measurements should be done as part of routine physical examinations in the clinic by doctors in order to predict the risk for T2DM and its complication among patients.

**Keywords:** Obesity, Anthropometry, Nupe,

Adiposity, Predictor, Type 2 Diabetes Mellitus.

#### OC49

### PRIVATE HOSPITALS' MANAGEMENT OF WASTE IN A LOCAL GOVERNMENT AREA OF PLATEAU STATE, NIGERIA

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**Introduction:** Healthcare services are aimed at improving wellbeing and preventing potential human health risks and environmental hazards. In the process, however, wastes that are potentially harmful are generated. Poor management of these healthcare wastes exposes the health workers, patients, waste handlers and the general public to health risks. This study focused on the assessment of hospital waste management practices in private hospitals of Jos North Local Government Area in Plateau State, Nigeria.

**Methods:** A total of 40 private hospitals in Jos north LGA were selected for the study by total population sampling. Information was obtained from facility heads or their appointed equivalent and by observation and entered into a semi-structured questionnaire. Data was entered and analyzed using Epi info version 3.5.4 at 95% confidence interval.

**Results:** Half of the hospitals were < 5 years in operation. Many of the health facilities offered surgical, medical, emergency and delivery services. Waste generated included general, infectious, chemical and radiological waste. Most (63%) of the health facilities collected waste in open waste bins, 63% stored waste before final disposal and 73% of the health facilities practiced open dumping or open burning for final disposal. The study also observed a lack of the availability of policy documents, lack of color coded bins and lack of incinerators as factors affecting proper waste disposal practices.

**Conclusion:** The study showed poor hospital waste disposal practices in majority of the private health facilities.

Private hospitals require greater focus by regulatory and enforcement agencies to ensure standard waste management practices.

**Keywords:** Hospital waste, private hospitals, waste management.

**OC50  
KNOWLEDGE, ATTITUDE AND PRACTICES OF THE MEDICAL STAFF REGARDING THE USE OF THE URINE DIPSTICK IN THE PEDIATRIC UNITS OF TWO UNIVERSITY HOSPITALS (CNHU-HKM AND CHUMEL) OF COTONOU**

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**Introduction:** Urine dipstick (UD) examination is a complement to the assessment of patients, especially when renal or metabolic diseases are suspected. When correctly implemented it helps provide valuable information for adequate care of the child. The aim of this study was to evaluate the knowledge, attitude, and practices (KAP) of the health care providers on the use of the UD in our setting.

**Methods:** This was a KAP survey performed from 01 March to 30 June 2018, including 43 registrars and 46 resident students working in the Pediatrics Unit of the two university hospitals (CNHU-HKM and CHUMEL) of Cotonou. The doctors filled out a self-administered questionnaire. Every practitioner using UD was assessed using an observation guide. A sample of 685 folders of children managed by the doctors was reviewed to identify practices, especially how UD result was used for patient care. Data processing was computer-based.

**Results:** The knowledge of the care providers on UD was poor or insufficient in 88.4% of cases. Their attitudes were inadequate in 56.5% of cases. Their practices were adequate or so in 52.1% of cases. The results of UD were under-

utilized for diagnostic and therapeutic purpose in 52% of cases. The surveyed had not received formal training and only 14 out of 43 received instructions from a coach. There was no link between the level of study of the registrars and the knowledge on UD.

**Conclusion:** This study demonstrates the need to systematically teach caregivers the use of UD for better care for children.

**OC51  
Devenir à court terme des enfants nés de mères séropositives au VIH/SIDA au CNHU de Cotonou**

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utilized for diagnostic and therapeutic purpose in 52% of cases. The surveyed had not received formal training and only 14 out of 43 received instructions from a coach. There was no link between the level of study of the registrars and the knowledge on UD.

**Conclusion:** This study demonstrates the need to systematically teach caregivers the use of UD for better care for children.

**OC52  
ARE THE WASTE MANAGEMENT PRACTICES IN THE HISTOPATHOLOGY LABORATORY IN ZARIA SUSTAINABLE? AN EVALUATION**

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**Introduction:** Worldwide, medical laboratory wastes and other healthcare wastes pose a significant risk to human health as well as contaminate the environment. In many developing countries, healthcare wastes and histology laboratory wastes management practices have received less attention from healthcare workers, health facility managers and governments. Our goal was to evaluate the sustainability of waste management practices in the histopathology laboratory of Ahmadu Bello University Teaching Hospital, Zaria Kaduna State, Nigeria.

**Methods:** A cross-sectional study that gathered information via a self-administered questionnaire, key informant interviews, and direct observation; with appropriate permissions, and participant consent from the histopathology laboratory staff. Data was then fit into a validated guideline for the evaluation and assessment of waste management practices at healthcare facilities to evaluate their level of sustainability.

**Results:** Five indices evaluated included waste management responsibility, segregation, storage, and packaging ranked at level 1; waste transport ranked



at level 0; waste recycling and reuse ranked at level 0; waste treatment ranked at level 1; and waste disposal ranked at level 2. An overall sustainability level of 1 was established.

**Conclusion:** This means that the operational performance at the histopathology laboratory is “generally operating in an unsustainable manner, although there is some evidence of awareness and willingness to change”. We recommend greater managerial commitment to standard waste management strategies, appointment of a trained waste manager and specific training of staff on standard waste management practices.

**Keywords:** Sustainable waste management, histopathology waste practices.

### OC53

#### DECLINES IN PAEDIATRIC BACTERIAL MENINGITIS IN REPUBLIC OF BENIN FOLLOWING INTRODUCTION OF PNEUMOCOCCAL CONJUGATE VACCINE: EPIDEMIOLOGICAL AND AETIOLOGICAL FINDINGS FROM 2011 – 2016

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### ABSTRACT

**Background:** Paediatric bacterial meningitis (PBM) remains an important cause of disease in children in Africa. We describe findings from sentinel site bacterial meningitis surveillance in children under five years in the Republic of Benin, from 2011 to 2016.

**Methods:** Cerebrospinal fluid (CSF) was collected from children admitted to Parakou and Tanguieta sentinel hospitals with suspected meningitis. Identification of *Streptococcus pneumoniae* (pneumococcus), *Haemophilus influenzae* and *Neisseria meningitidis* (meningococcus) was performed by rapid diagnostic tests, microbiological culture and/or polymerase chain reaction, and where possible, serotyping/grouping analysis was performed.

**Results:** The sentinel hospitals enrolled 10,919 suspected cases of meningitis. Most patients were 0–11 months old (44.5%) and there were 542 (5.0%) in-hospital deaths. Overall 4,168 CSF samples were screened for pathogens and a total of 191 (4.6%) PBM cases were confirmed, predominantly caused by pneumococcus 95; (49.7%). Following pneumococcal conjugate vaccine (PCV) introduction in 2011, annual suspected meningitis cases and deaths progressively declined (2,534 to 1,359 and 164 to 14, respectively). Additionally, there was a gradual decline in the proportion of meningitis cases caused by pneumococcus from 77.3% (17/22) in 2011, to 32.4% (11/34) in 2016. *H. influenzae* meningitis increased over time and became the predominant pathogen (16/34; 47.1%) by 2016.

**Conclusion:** The observed decrease in pneumococcal meningitis and increase in *H. influenzae* meningitis post-PCV introduction may be indicative of changing patterns of PBM aetiology in Benin. Maintaining vigilant and effective surveillance is critical for understanding these changes and their wider public health implications.

**Keywords:** Benin, Paediatric, Bacterial meningitis, Pneumococcus, Vaccines.

### OC54

#### Evaluation de la pratique du Tri, Evaluation et Traitement d'Urgence (TETU) à travers la mortalité infanto-juvénile précoce en pédiatrie hospitalière à Parakou en 2018

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### RÉSUMÉ

**Introduction:** Plusieurs stratégies ont été adoptées dans la prise en charge des enfants afin de réduire de manière significative la mortalité infanto-juvénile surtout aux urgences. Parmi ces stratégies, le tri, évaluation et traitement d'urgence (TETU) de par son implémentation a permis d'aboutir à des résultats concrets. La présente étude s'est proposée d'étudier l'effet de la pratique du tri, évaluation et traitement d'urgence à travers la mortalité infanto-juvénile précoce en Pédiatrie au Centre Hospitalier Départemental et Universitaire du Borgou (CHUD B) à Parakou en 2018.

**Méthodes:** Il s'agissait d'une étude transversale et descriptive à visée analytique prenant en compte 340 enfants âgés de 1 à 59 mois selon un recrutement systématique. Les variables descriptives quantitatives étaient exprimées en moyenne  $\pm$  écart-type lorsque la distribution est normale et celles qualitatives en effectif avec leur pourcentage accompagné des intervalles de confiance. Le test « Chi2 » ou test exact de Fisher selon les cas, le test t de Student, ont été utilisés. Le seuil de significativité était fixé à  $p < 0,05$ .

**Résultat:** Un total de 340 enfants de 1 à 59 mois avait été enregistré. L'âge moyen était de  $20,28 \pm 14,83$ . La tranche d'âge de 1-10 mois était la plus représentée avec 33,82%. Le sexe ratio était de 1.05. Aussi, 187 (55,00%) enfants résidaient en milieu urbain et 251 (73,82%) résidaient à plus de 5 km de l'hôpital. La détresse respiratoire sévère, les convulsions et la déshydratation étaient les signes

d'urgence les plus fréquents (14.7%, 14.11% et 6.18%). La pâleur palmaire sévère était le signe prioritaire le plus retrouvé (62%). Le tri a permis de classer 40.29% des enfants comme urgents, 53.82% comme prioritaires. La mortalité infanto-juvénile précoce était de 9,71%. Elle était significativement associée au niveau d'instruction de la mère ( $p=0,0243$ ), à l'état de tri ( $p=0,0086$  OR 2.24) et aux diagnostics de sortie ( $p=0,0000$ ). Les pathologies associées étaient plus létales.

**Conclusion:** La pratique du TETU montre que la mortalité infanto-juvénile précoce demeure toujours un problème de santé publique. Son implémentation doit être systématisée et monitorée pour de meilleurs résultats.

**Mots clés:** Mortalité infanto-juvénile précoce, urgences pédiatriques, paludisme grave, pathologies associées.

(OC = ORAL COMMUNICATIONS)

#### P01

### PHENOTYPIC CHARACTERISATION OF *STAPHYLOCOCCUS AUREUS* ISOLATED FROM PATIENTS IN SECONDARY AND TERTIARY HEALTH CARE FACILITIES ZARIA METROPOLIS, NIGERIA

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#### ABSTRACT

**Background:** *Staphylococcus aureus* is associated with hospital (HA-MRSA),

community (CA-MRSA) and livestock (LA-MRSA) which are of public health importance.

**Methods:** A cross sectional descriptive study was carried out in 2018 to detect and phenotypically characterize *S. aureus* isolated from hospital patients in Zaria metropolis. Four hundred and twenty samples were collected by purposive sampling technique from 5 hospitals.

**Results:** The results revealed majority of the patients (54.3%) were within the age bracket of 21-40 years, with mean age of  $26.04 \pm 12$  years, 58.6% females, 58.3% married and 32.1% were housewives. Approximately, 70% of the respondents had history of self-prescribed antibiotics, 91.2% were outpatients and 6.0% had history of surgery. The commonest abused antibiotics were ampiclox (19.5%) and cotrimoxazole (10.0%), and the mean duration of their use was  $3.5 \pm 1.3$  days. The commonest surgery was appendectomy. The detection rate for *S. aureus* was 10% (42/420) and 5.2% (22/420) for MRSA with Ahmadu Bello University Teaching Hospital (ABUTH), Zaria having the highest detection rate ( $\chi^2 = 17.66, p < 0.819$ ). The isolates of *S. aureus* showed the highest frequency of resistance against ampicillin 42 (100%), followed by penicillin G 39 (92.9%), cefoxitin 15 (35.7%) and least resistance to gentamicin 5 (11.9%). The multiple antibiotic resistance (MAR) indices of *S. aureus* ranged from 0.2 – 0.9 for all the isolates. The detection rate for MRSA was 5.2% with the highest at the ABUTH Zaria ( $\chi^2 = 8.060, p < 0.427$ ). The frequency of resistance for the MRSA were ampicillin 22 (100%), penicillin G 21(95.5%), ciprofloxacin 5 (22.7%) and least resistance to gentamicin 2 (9.1). Thirty six (85.7%) of the profiles were classified as multiple drug resistance and 6 (14.3 %) as extensive drug resistance. All the 22 MRSA isolates showed resistance to vancomycin and oxacillin using MIC.

**Conclusion:** These results are of great public health concern, which requires strict infection prevention and control among others.

**Keywords:** *S. aureus*, Phenotype, Antibiotic resistance, Hospital patients, Zaria.

#### P02

### MUCOCUTANEOUS LEISHMANIASIS MASOURADINGAS LEPROMATOUS LEPROSY

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#### ABSTRACT

**Background:** Leishmaniasis is present in scattered areas worldwide. Human infection is caused by more than 20 leishmania species, transmitted by bites of sand flies with manifestations including cutaneous, mucosal and visceral syndromes. Diffuse cutaneous Leishmaniasis, a rare syndrome, result in widespread nodular skin lesion resembling those of lepromatous leprosy. Diagnosis is by using Giemsa-stained smears, culture or PCR-based assays. We are present the case series of Leishmaniasis with HIV co-infection and atypical presentation masquerading as leprosy.

#### CASE SUMMARY

**Case 1:** Mr. G J a 37-year-old civil servant diagnosed HIV positive 6years. He presented with painless nodular rashes and plagues involving the hand, forearm, arm, face, lower limbs, ear lobes and larynx there is associated bilateral keratitis, anterior uveitis and secondary glaucoma. Routine investigation were normal. Patient was diagnosed clinically to have Lepromatous Leprosy with Type II lepra reaction and commenced on Anti-lepromatous medications with no improvement. Biopsy of nodules reveals Leishmaniasis.

**Case 2:** A 48-year-old woman who was diagnosed with HIV infection about 3 years ago presented with 1-year history of nodular rashes on the hands, forearms, face, ear lobes nodular, pharynx and palatal tonsils. Clinical diagnosis of Kaposi's sarcoma was entertained, Biopsy of nodules reveals Leishmaniasis.

**Case 3:** A 25-year-old man who was diagnosed with HIV about 7 months ago,

presented with 4 months history of widespread nodular rashes on the face, hands, back and trunk with more predisposition to the extensor areas. These lesions were preceded by a single ulcer on the left upper arm that was clinically diagnosed to be Leprosy cutaneous with differentials of Leishmaniasis. Biopsy of the lesions reveal macrophages with Leishman Donovan bodies.

**Conclusion:** Leishmaniasis infection may present with Diffuse cutaneous nodules and plaques which may be confused with leprosy high index of suspicion is need in leprosy endemic area.

**Keywords:** Leishmaniasis, mucocutaneous, HIV positive, lepromatous leprosy, masquerading.

### P03

#### COMPARISON OF THE PREVALENCE AND DETERMINANTS OF DEPRESSION AMONG NURSES AND SECONDARY SCHOOL TEACHERS IN ENUGU METROPOLIS, ENUGU STATE, NIGERIA

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**Introduction:** Depression is a common mental disorder seen more in women than in men especially in their reproductive age. There are biological, psychological and socio-cultural causes of depression that affect women. This study aimed to identify the prevalence, factors that contribute to depression and coping strategies for depression among women.

**Methods:** In a comparative cross-sectional study, pre-tested semi-structured self administered questionnaires were administered to 400 nurses and 400 secondary school teachers in Enugu metropolis. The questionnaire was an adopted tool from WHO comprising socio-demographics data, Rosenberg's self-esteem scale, Cohen's perceived stress scale, presence of chronic conditions e.g. hypertension, diabetes and obesity, Brief COPE Inventory and Becks Depression Inventory II. A simple sampling method was used to select the study participants. Two focus group discussions per group involving 8–9

women were conducted to identify the factors contributing to depression and their coping strategies.

**Results:** The findings of the study revealed prevalence rate of depression in nurses as 13.3% and teachers 17.5%. From the socio-demographics of the participants, age, educational level and average monthly income were found to be statistically significant, associated with depression. Average income, presence of DM, perceived stress and satisfaction with life were seen to be the predictors of depression. The predominant significant coping strategies used by the respondents were distraction by walking around, taking alcohol, accept existence of stress, see things in a positive light, planning activities in advance, listening to jokes/funny music, accept circumstances as they are and blaming self for what happened.

**Conclusion:** Health education has been recommended on proper nutrition and organizing health enlightenment programme to alleviate stressful lives. Also health education on some effective ways of coping with depression.

**Keywords:** Prevalence, determinants, depression, nurses, teachers.

### P04

#### AWARENESS AND RESPONSE TO INTIMATE PARTNER VIOLENCE IN WOMEN LIVING WITH HIV/AIDS AND HIV NEGATIVE WOMEN IN UMUAHIA, SOUTH-EASTERN NIGERIA

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#### ABSTRACT

**Background:** Intimate Partner Violence (IPV) is the range of sexually, psychologically and physically coercive acts used against adult and adolescent women by a current or former male partner. It is a major public health problem globally. IPV is the commonest form of violence against women and one of the most pervasive human rights abuses against women. The UN reported that 1 in 3 women had experienced physical/

sexual violence at some point in their lives and 2 in 3 victims of intimate partner homicide are women. The various forms of IPV include physical, emotional, sexual and financial abuse. This study is aimed at determining the level of awareness and responses to abuse by WLWHA and HIV negative women in Umuahia, Nigeria.

**Methods:** A comparative cross-sectional study involving 200 WLWHA and 200 HIV negative women receiving care in FMC Umuahia using systematic random sampling method. An interviewer administered questionnaire was deployed for data collection. Data analysis was done using IBM SPSS Version 20.0.

**Results:** The age range of WLWHA respondents was 23–70 years while that of HIV negative women was 18–70 years. Awareness on IPV was higher amongst HIV negative women (77%) compared to WLWHA respondents (52.5%). Among those who suffered any form of IPV, majority of the WLWHA (46.1%) and HIV negative women (58.9%) did nothing while the least common response was separating permanently (3.5% as against 6.8%).

**Conclusion:** The awareness and response to IPV especially amongst women remains a thing of concern. Mass awareness campaigns amongst all women are advocated for to help combat this problem.

**Keywords:** Intimate Partner Violence, Awareness, Response.

### P05

#### KNOWLEDGE, COMPREHENSION, ATTITUDE TO AND PRACTICE OF THE FIVE LEVELS OF PREVENTION IN CHILD HEALTH CARE IN A NIGERIAN TEACHING HOSPITAL

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#### ABSTRACT

**Background:** Preventable diseases are leading causes of morbidity and mortality in Nigeria. An understanding and application of the five levels of prevention by doctors caring for children can enhance care in a pro-active manner, and improve Nigeria's child health indices.

**Aims:** The aim of this study to determine the knowledge, attitude and practice of the five levels of prevention by child-care doctors at the University of Port Harcourt Teaching Hospital (UPTH). Settings and Design: This was a descriptive cross-sectional survey carried out in UPTH. **Methods and Material:** This is a questionnaire-based study. Information on socio-demographics, knowledge, attitude and utilization of the five levels of prevention was sought. Statistical analysis used: Data were analyzed using descriptive statistics.

**Results:** A total of 295 doctors participated in this study. Twenty-six (8.8%) doctors had good knowledge of the five levels of prevention and this knowledge decreased as their age increased (OR=0.955 ; 95% CI : 0.917–0.995; p=0.029). Doctors in Paediatrics were four times more likely to be knowledgeable about the levels of prevention than other doctors (OR=3.637; 95% CI: 1.496- 8.844; p=0.004). Good attitude was seen in 287 (97.3%) doctors while good practice was by 222 (75.3%) doctors. Doctors with good knowledge significantly practiced more levels of prevention, levels 1, 2, 4 and 5, p=0.049, 0.024, 0.001 and 0.010 respectively.

**Conclusion:** Majority of the doctors have poor knowledge of the five levels of prevention, despite having a good attitude and practice which suggests a knowledge practice gap. Interventions to improve doctors' knowledge are thus recommended.

**Keywords:** Five levels of prevention, Knowledge, Attitude, Practice, Child healthcare.

#### P06

### NASAL CARRIAGE OF METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA) AMONG HEALTH WORKERS IN A TEACHING HOSPITAL IN GHANA

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**Introduction:** Methicillin-resistant *Staphylococcus aureus* (MRSA) is an important cause of nosocomial infections. Evidence of increasing prevalence in healthcare settings abound. The principal mode of transmission is via the transiently colonized hands of hospital personnel. The anterior nares serve as a reservoir for this pathogen. We sought to determine the prevalence of nasal carriage of MRSA among healthcare workers in a tertiary hospital in Ghana.

**Methods:** This was a cross-sectional study conducted at the Komfo Anokye Teaching Hospital. Hundred healthcare workers were conveniently selected for the study. Data was collected using a structured questionnaire. Nasal swabs were taken using a sterile moistened swab. Culture, sensitivity and further analysis were done on all samples. The sensitivity patterns of isolates were determined. MRSA strains among isolates of *Staphylococcus aureus* were determined by disc diffusion method on Mueller Hinton agar plate.

**Results:** 31.0% of the health workers had pathogenic strains of nasal organisms (*Staphylococcus aureus*-15, *Klebsiella pneumoniae*-4, *Escherichia coli*-6, *Candida spp*-3, *Klebsiella oxytoca*-1, *Enterobacter aerogenes* – 1). Among the 15 isolates of *Staphylococcus aureus*, 3 were MRSA. All MRSA isolates were sensitive to Vancomycin, Teicoplanin, Clindamycin, Fusidic acid, Rifampicin and Linezolid. They were however resistant to Ampicillin/Amoxicillin, Cloxacillin, Penicillin and Amoxicillin Clavulanate. Two MRSA isolates were resistant to Trimethoprim-sulfamethoxazole and two were resistant to tetracycline.

**Conclusion:** Our study finds lower rates of nasal carriage of *Staphylococcus aureus* among healthcare staff. However, prevalence of MRSA in this study is

similar to findings from other studies. We recommend routine screening and treatment for nasal MRSA among healthcare staff.

**Keywords:** MRSA, Nasal carriage, Health workers.

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#### P07

### Evaluation de la qualité de la prise en charge nutritionnelle de l'hypertension artérielle au Centre Hospitalier Universitaire Départemental Du Borgou en 2019

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#### RÉSUMÉ

**Introduction:** L'hypertension artérielle engendre de lourdes conséquences et surtout quand il existe un dysfonctionnement nutritionnel Objectifs : Evaluer la qualité de prise en charge nutritionnelle de l'hypertension artérielle au centre hospitalier universitaire départemental du Borgou (CHUD-B) en 2019.

**Méthodes:** Il s'agissait d'une étude

descriptive transversale et évaluative sur la prise en charge nutritionnelle (PEC) des hypertendus déroulée du 1er au 28 Février 2019 dans le service de cardiologie du CHUD-B. Etaient inclus le personnel soignant et les hypertendus confirmés suivis dans ce service et tous présents pendant la période d'étude et ayant donné leur consentement. La composante principale était la qualité de la PEC nutritionnelle de l'HTA avec ses composantes explicatives : ressources, mise en oeuvre et résultat. L'évaluation de la qualité de la prise en charge nutritionnelle a été réalisée sur la base du total des scores obtenus par ses trois composantes. Les qualités d'au moins 80% et celle inférieure à 60% étaient jugées bonne et insuffisante.

**Résultats:** Au total, 55 participants étaient inclus dont 15 (27,27%) agents de santé et 40 (72,72%) patients. L'âge moyen des patients interrogés était de 51,93 ans  $\pm$  11,99 ans [extrêmes de 40 et 64 ans]. En général, la « qualité de la PEC nutritionnelle de l'HTA » était insuffisante avec un score de 41,37%. Delà les composantes « ressources » et « mise en oeuvre » étaient respectivement évaluées à 28,57% et 50% soit de qualité insuffisante. La composante « résultat » était de qualité moyenne avec 66,66%. Plusieurs facteurs étaient à la base comme le non-respect du régime alimentaire et la formation insuffisante des agents.

**Conclusion:** Ces résultats mettent en évidence les problèmes liés à la prise en charge nutritionnelle de l'HTA et la nécessité de renforcement de la capacité.

**Mots clés:** Hypertension artérielle, prise en charge nutritionnelle, qualité, évaluation.

#### P08

### ACCEPTABILITY OF DELIVERY CARE SERVICES AT PRIMARY HEALTH CARE CENTRES IN RURAL COMMUNITIES IN EDO STATE, NIGERIA

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#### ABSTRACT

**Introduction:** Evidence suggests that uptake of maternal health services (MHS) at Primary Health Care (PHC) centres is low in Nigeria. Nonetheless, there is paucity of research on acceptability as a determinant of MHS uptake in this regard. This study assessed the acceptability of delivery care services at Primary Health Care centres in rural communities in Edo State, Nigeria.

**Methods:** This descriptive cross-sectional study utilized mixed methods. Structured questionnaires were used to collect data from women of childbearing age in two rural communities in Edo State regarding their sociodemographic characteristics, provider preferences and attitude towards MHS, and knowledge, perception and acceptability of delivery care services available at PHC centres. Binary logistic regression was modelled to determine predictors of acceptability of delivery care services. Findings from the questionnaire survey were triangulated with focus group discussions (FGDs), key informant interviews (KIIs) and facility assessment of the PHC centres in the selected communities.

**Results:** Among 526 women in the questionnaire survey, 332 (63.1%) had good knowledge of delivery care services at the PHC centre in their communities and 227 (43.2%) had poor perception of these services. Only 139 (26.4%) women deemed the delivery care services at the PHC centres acceptable. Good knowledge of available services, OR = 9.314 (4.066 – 21.335) and positive perception of staffing of the PHC centre, OR = 77.145 (20.862 – 285.267) were found to be positive predictors of acceptability of delivery care services. Findings of the qualitative FGDs, KIIs and facility assessment revealed that low acceptability was largely due to negative perceptions of PHC centres.

**Conclusion:** Acceptability of delivery care services at PHC centres within the community was low. Interventions to

strengthen PHC service delivery and awareness creation on service availability are required to improve acceptability of MHS at PHC centres in rural communities.

**Keywords:** Acceptability, Maternal Health Services, Primary Health Care, Nigeria.

#### P09

### ENDOVASCULAR INTERVENTIONS FOR DIABETIC CRITICAL LOWER LIMB ISCHEMIA IN NIGERIAN NIGER DELTA REGION

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#### ABSTRACT

**Introduction:** Critical limb ischemia (CLI), defined as chronic ischemic rest pain, ulcers, or gangrene attributable to objectively proven arterial occlusive disease, is the most advanced form of peripheral arterial disease. Traditionally, open surgical bypass was the only effective treatment strategy for limb revascularization in this patient population. However, during the past decades, the introduction and evolution of endovascular procedures have significantly increased treatment options. In a certain subset of patients for whom either surgical or endovascular revascularization may not be appropriate, primary amputation remains a third treatment option. However endovascular treatment of critical limb ischemia is not widely available in Nigeria. The objective of this study was to report our experience of endovascular treatment of diabetic critical limb ischemia in Nigeria, the challenges and the hybrid technique

**Methods:** We retrospectively reviewed 43 cases of diabetic critical lower limb ischemia from June 2017 to May 2019 that presented to the cardiovascular Centre of the Bayelsa Specialist. The patients' records were reviewed for the following : 1) symptoms (claudication, ulcer, gangrene); 2) risk factors for the critical limb ischemia ( duration of DM, HbA1c, smoking, dylipidemi and hypertension ; 3). Procedure done i.e. PTA with stenting, PTA with drug eluting balloon, or hybrid

technique; 4) the outcome of the procedure.

**Results:** Of the 43 critical limb ischemic patient, 25 were males. The mean age group was  $76 \pm 10.90$ . Among these patients, 12 had history of claudication, 26 had ulcer and 5 had gangrene. There were 26 patients with duration diabetes mellitus more than 20 years, 10 patients with duration of Diabetic Mellitus between 10–20 years and 9 patients had duration of Diabetic Mellitus less than 10 years. There were 28 patients with complete revascularization, 8 patients had their above knee amputation converted to below knee amputation and 7 patients had failed revascularization.

**Conclusions:** Diabetic critical limb ischemia is common in our environment. Endovascular treatment is available and effective alternative to conventional amputation or could be combined as hybrid technique.

**Keywords:** Diabetes mellitus, critical limb ischemia, endovascular treatment.

#### P10

### PATTERNS OF ECG/ECHOCARDIOGRAPHIC ABNORMALITIES IN YOUNG VS. OLDER ADULT STROKE PATIENTS IN A TERTIARY HOSPITAL IN SOUTH-SOUTH, NIGERIA

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#### ABSTRACT

**Introduction:** Stroke is a leading cause of disabilities worldwide. When these disabilities occur, Research currently show a ton of evidence of stroke with various cardiac abnormalities in which echocardiography and electrocardiography were used to screen/diagnose and pattern of cardiac abnormalities in patients with stroke. However there still exist varied evidences regarding the use of ECG and ECHO especially in poor resource settings like Nigeria for routine patient evaluation irrespective of the age or a clinical suspicion of cardiac abnormalities.

**Aim:** This study is to elucidate the presence, types, prevalence and pattern of ECG and ECHO abnormalities in young versus Older stroke patients.

**Methods:** One hundred and eighty stroke patient had a transthoracic echocardiogram performed according to established recommendations. Data obtained was analysed using IBM-SPSS version 23.0 with a p-value of  $p < 0.05$  considered significant for all comparisons done.

**Results:** there was a significantly higher prevalence of ischaemic stroke in older patients (68.9%) and haemorrhagic stroke in younger patients (45.6%) [ $p < 0.05$ ]. The commonest ECG abnormalities were left ventricular hypertrophy, LAE, RAE and prolonged QTC. Rhythms abnormalities were more in older than younger stroke patients. Echocardiographic left ventricular hypertrophy was the commonest structural abnormality in both age groups. Abnormal left ventricular geometry was present in over two-thirds of both age groups, with a trend towards more concentric remodelling in the younger group and eccentric remodelling in the older group.

**Conclusion:** Overall, the echocardiographic structural abnormality was more prevalent in the older group compared to the young, but there was no significant difference in the pattern and prevalence of the findings in both the young and the older groups of patients as the cardiovascular risk factors were found to be similar in both groups.

#### P11

### Mise en oeuvre des interventions à haut impact sur la santé des enfants par les agents de santé communautaires au Togo

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**Introduction:** Les régions de Kara et des

Savanes enregistrent les plus forts taux de mortalité infanto-juvénile au Togo (respectivement 144‰ et 167‰). En 2011, seuls 65,8% de la population avait accès à une structure de santé. L'objectif de ce travail était de décrire la mise en oeuvre des interventions des Agents de Santé Communautaires (ASC) pour améliorer la couverture des services de santé de base chez les enfants de moins de 5 ans.

**Méthodologie:** Les interventions communautaires ont débuté par l'élaboration des modules de formation. Les autres étapes étaient la sélection des communautés d'intervention, la formation des ASC sur le paquet intégré de soins sur la PCIMNE, incluant la prise en charge du paludisme, de la diarrhée, de la pneumonie et de la malnutrition aiguë sévère chez l'enfant de 0-5 ans et le suivi.

**Résultats:** Le déploiement de 1 289 ASC formés a permis de rendre les soins de santé infantiles accessibles à 77 340 ménages dans les 12 districts des deux régions. A fin 2015, les ASC déployés ont pris en charge 65 252 cas de paludisme (22% des cas attendus), 14 887 cas de diarrhée (50% des épisodes attendus), 5 949 cas de pneumonie (44% attendus) et 2 730 cas de malnutrition aiguë sévère (30% attendus) au niveau communautaire. Le taux de recours aux soins pour les enfants a été plus élevé dans les régions Savanes et Kara que dans les autres régions du pays. L'ASC est appelé en premier recours dans 79% des cas de manière équivalente dans les deux régions. Le service de l'ASC est qualifié d'utile et efficace par 90% des ménages.

**Conclusion:** Le recours à l'utilisation des ASC constitue une stratégie efficace pour améliorer la couverture des services de santé de base chez les enfants de moins de 5 ans.

**Mots clés:** Intervention, communautaire, enfant, Togo.

#### P12

### NEUTROPAENIC ENTEROCOLITIS: A MEDICAL/SURGICAL ONCOLOGICAL DILEMMA

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## ABSTRACT

**Background:** Neutropaenic enterocolitis (NE) is a life-threatening condition characterized by an inflammation of the caecum, colon and/or the small bowel in the background of neutropaenia resulting in ischaemia, necrosis, sepsis, haemorrhage and sometimes perforation. The classical setting is a neutropaenic patient who develops fever and abdominal pain, closely mimicking acute appendicitis.

**Case Report:** We report a case of NE seen in a 17-year old boy who was diagnosed with acute myeloblastic leukaemia (AML). He developed fever and severe right-sided lower abdominal pains with marked right iliac fossa tenderness, two days following completion of chemotherapy. A tentative diagnosis of acute appendicitis and a differential diagnosis of NE was made. He had severe neutropaenia and radiologic investigations done were typical of NE. He was managed non-operatively. Symptoms resolved after seven days, granulocyte count returned to normal and he was discharged home.

**Conclusion:** A high index of suspicion is needed to identify this condition in high risk patients so as to reduce the associated morbidity and mortality when erroneously diagnosed and treated as acute appendicitis.

**Keywords:** Neutropaenic enterocolitis, Typhilitis, Neutropaenia, Appendicitis, Acute myeloblastic leukaemia.

## P13

### PROFILE OF PAEDIATRIC RENAL TUMOURS SEEN AT THE UNIVERSITY OF BENIN TEACHING HOSPITAL, BENIN CITY

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## ABSTRACT

**Background:** Renal tumours are common in children. We document the profile of paediatric renal tumours seen at the University of Benin Teaching Hospital (UBTH), Benin City.

**Methods:** Records of all renal cases managed by the Paediatric Oncology and Paediatric Surgical Units of UBTH were reviewed over a two-year period and relevant data extracted.

**Results:** A total of 85 tumour cases were seen with 14 (16.5%) being renal tumours. Twelve (14.1%) were cases of nephroblastoma, one (1.2%) mesoblastic nephroma and one (1.2%) was benign renal cyst. The ages of the patient ranged from 2–10 years with a mean ( $\pm$  SD) of 5.0 ( $\pm$ 2.3). Eight (57.1%) were males while six (42.9%) were females, giving a M:F ratio of 1: 1.3. Of the cases with nephroblastoma, the right kidney was involved in six cases (50%), while bilateral involvement of the kidney occurred in one (8.3%). Delta State was the commonest place of residence in six (50%) cases, followed by Edo State in four (33.3%) and Bayelsa State in one (8.3%). Of the 12 cases of nephroblastoma, two (16.7%) had anaplastic histology, while the others 10 (87.3%) had favourable histology. Three (25%) had pulmonary metastasis at presentation; one (8.3%) had liver metastasis while one (8.3%) developed mesenteric node involvement.

Nine (75%) with nephroblastoma survived. Mortality occurred in three (25%). Of the three mortalities, one had bilateral involvement (stage 5) and one had stage 4 disease with mesenteric nodal involvement and intractable ascites. The third case died of toxic epidermal necrolysis (TEN) as a reaction

to chemotherapy.

**Conclusion:** Similar to global statistics, nephroblastoma was the commonest renal tumour seen, with others being uncommon. Cases of nephroblastoma with favourable histology constituted a majority seen in our centre, with a poor prognosis for patients presenting with advanced disease.

**Keywords:** Renal tumours, Nephroblastoma, Mesoblastic Nephroma, Paediatric tumours.

## P14

### FACTORS ASSOCIATED WITH CHOICE OF HOUSEHOLD COOKING FUEL IN SOUTH EAST NIGERIA AND WILLINGNESS TO CHANGE TO CLEANER FUELS

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## ABSTRACT

**Introduction:** Worldwide, exposure to household air pollution is shown to cause approximately 4.3 million deaths annually. This study assessed the factors associated with choice of household cooking fuel and willingness to change to liquified petroleum gas (LPG) or electricity in South East Nigeria.

**Methods:** A descriptive cross-sectional study conducted among 415 household heads in Abakpa-Nike, Enugu State, Nigeria. Multistage sampling was used to recruit eligible participants. Data was collected using a structured interviewer administered questionnaire. Statistical analysis was done using SPSS 22.0 and STATA 15. Level of statistically significant was set at  $p < 0.05$ .

**Results:** Most of the participants 350 (84.3%) use kerosene as either primary or secondary cooking fuel. LPG users were more educated than kerosene, charcoal and wood users ( $\chi^2 = 52.2$ ,  $p = 0.004$ ). Participants in the age group 20–29 years preferred cleaner fuels to fossil fuels ( $\chi^2 = 36.27$ ,  $p = 0.042$ ). There was a

higher fuel expenditure of >N5000 monthly among kerosene users than LPG users. Participants with formal education were more willing to pay for cleaner fuel ( $p < 0.05$ ). A higher proportion of the participants, 64 (23.4%) in the lowest socio-economic status (Q1) were willing to pay for LPG.

**Conclusion:** Most participants despite their SES were willing to pay for LPG. There is therefore need to make cleaner fuels affordable for household consumption and to educate the masses on the importance of using cleaner fuels.

**Keywords:** Household cooking fuel, willingness to pay, kerosene, Indoor air pollution, Nigeria.

### P15

#### Profil microbiologique des méningites: analyses du liquide cébrospinal au laboratoire de l'Institut National de Santé Publique en 2017

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### RÉSUMÉ

**Introduction:** La méningite est une inflammation des méninges, des membranes qui entourent le cerveau et la moelle épinière.

**Objectif:** L'objectif de cette étude était d'identifier les étiologies des méningites en Guinée.

**Méthodologie:** Cette étude rétrospective et descriptive a été menée à l'Institut National de Santé Publique de Guinée (INSP), à partir des données des échantillons de Liquide Cérébro-Spinal (LCS) enregistrés dans la base de données pendant l'année 2017. Les échantillons reçus ont été analysés par différents examens bactériologique et mycosiques (coloration de Gram,

coloration à l'encre de chine pour la recherche du *Cryptococcus*, culture) immunologiques (tests d'agglutination permettant la détection des antigènes des germes responsables de la méningite) et moléculaires (la polymérase Chaîne réaction). Les analyses ont été effectuées avec le logiciel SPSS de sa version 20.

**Résultats:** Les données de 347 échantillons de LCS ont été analysées. Parmi lesquels 31 échantillons étaient confirmés de méningite soit une proportion de 9%. Ces échantillons positifs étaient dominés par le sexe masculin, soit 58% avec une sex-ratio de 1,3. L'âge moyen des patients était de  $11,53 \pm 15,26$  ans. 29 échantillons ont été analysés à la microscopie, parmi eux 13 ont présenté des germes, soit (44,83%). Les tests d'agglutination ont été réalisés sur 25 échantillons dont 15 présentaient des germes, soit (60%). Sur 31 échantillons ayant bénéficiés de la culture, 11 ont permis l'isolement et l'identification des bactéries, soit 35,48%. Dans notre étude, le *Cryptocoque neoformans* était le plus retrouvé avec 14 cas, soit 46,16, suivi de *Streptococcus pneumoniae* et de *Hemophilus influenzae* type B avec respectivement, 8 et 6 soit 25,81 et 19,35%.

**Conclusion:** Il ressort de cette étude que la fréquence de la méningite diagnostiquée au laboratoire de l'institut national de santé publique en 2017 était de 9%. Les étiologies les plus fréquentes étaient le *Cryptococcus neoformans*, le *Strepto-coccus pneumoniae* et *Hemophilus influenzae* type B.

### P16

#### ÉVOLUTION DE L'ÉTAT NUTRITIONNEL DES PATIENTS CO-INFECTÉS TB/VIH PENDANT LE TRAITEMENT ANTITUBERCULEUX AUCHEUDE CONAKRY-GUINÉE

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### RÉSUMÉ

**Introduction:** La malnutrition est courante au cours du traitement antituberculeux chez les patients co-infectés TB/VIH. L'objectif de cette étude était d'évaluer la variation de l'indice de masse corporelle (IMC) au cours du traitement antituberculeux chez les patients co-infectés TB/VIH.

**Méthodes:** Une étude de cohorte de patients nouvellement diagnostiqués tuberculeux co-infectés VIH mis sous thérapie antituberculeux dans les services de Pneumophthysiologie (N=518) et de Maladies Infectieuses et Tropicales (N=55) du CHU de Conakry. La période d'étude allait du 1 mars 2013 au 30 avril 2015. Chaque mois les patients ont été examinés. Sur un total de 573 cas de TB/VIH enrôlés, seuls 321 (56%) cas avec au moins deux mesures de poids, ont été inclus dans l'analyse de la variation de l'IMC. Nous avons analysé l'état nutritionnel des patients au début et à la fin du suivi.

**Résultats:** La cohorte de 573 patients avait un âge moyen de  $35,6 \pm 11,3$  ans et composée de 52,5% de femmes. L'indice de masse corporelle (IMC) médian à l'inclusion était de  $17,6 \text{ kg/m}^2$  (25e et 75e percentiles 15,5–19,7). Le déficit nutritionnel (IMC < 18,0) était présent chez 56,6% des 573 patients. A la fin du suivi des 321 patients, 15 (4,7%) étaient perdus de vue, 34 (10,6%) décédés et 272 (84,7%) guéris. Les patients guéris et perdus de vue ont gagné en moyenne respectivement 2,6 kg et 0,1 kg pendant le traitement. Les patients décédés ont perdu en moyenne 3,6 kg. Les changements de poids des patients guéris différaient de ceux des décédés pendant le traitement ( $p < 0,001$ ).

**Conclusion:** Les patients nouvellement atteints de tuberculose co-infectés VIH au CHU de Conakry sont souvent malnutris avant le début du traitement de la tuberculose. Le gain de poids pendant la thérapie semble être un indicateur fiable de la réponse globale du traitement.

### P17

Évaluation de la qualité de l'eau de boisson et facteurs associés en milieu professionnel dans la ville de Parakou



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## RÉSUMÉ

**Introduction:** La qualité de l'eau de boisson est une préoccupation de santé publique à l'échelle mondiale. En milieu de travail, l'accès à une eau de boisson saine influence de manière importante la santé et constitue un gage de productivité.

**Objectif:** Évaluer la qualité de l'eau de boisson et les facteurs associés en milieu de travail dans la ville de Parakou.

**Méthodes:** Il s'est agi d'une étude transversale descriptive et analytique réalisée de septembre à décembre 2018 dans toutes les entreprises de dix quartiers tirés au hasard de la ville de Parakou. Un prélèvement de l'eau que les travailleurs boivent dans chaque structure été fait dans des flacons stériles de 100ml et de 250ml ; les échantillons ont été acheminés au laboratoire de la Société Nationale des Eaux du Bénin (SONEB) de Parakou pour y subir une analyse des paramètres physico-chimique et bactériologique. Une comparaison a été faite avec les normes de l'OMS. Les travailleurs des structures ont été interrogés sur la provenance de l'eau consommée, l'existence d'éventuelles maladies liées à la consommation de l'eau. Les données ont été analysées avec le logiciel Epi info version 7.

**Résultats:** Au total 10 échantillons ont été collectés et 302 travailleurs enquêtés. L'eau provenait de 4 sources : puits, forage, eau de boisson, eau minérale. 3 échantillons ne répondaient pas aux normes de pH ; 2 présentaient des bactéries (*Escherichia.Coli* et *Entérocoques Fécaux*). Aucun ne répond aux normes de conductivité. 210(69,53%) enquêtés ont déclaré souffrir fréquemment de la fièvre typhoïde que cela serait lié à la qualité douteuse de l'eau de boisson.

**Conclusion:** Il existe encore des entreprises à Parakou en 2018 où l'eau de boisson est impropre à la

consommation avec tous les risques pour la santé des travailleurs.

**Mots clés:** Eau de boisson, santé, travailleur, Parakou.

## P18

### Hémophilie A majeure révélée par un hématome sous dural chronique : à propos d'un cas

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## RÉSUMÉ

**Introduction:** Les hémorragies intracrâniennes constituent une manifestation sévère au cours de l'hémophilie, particulièrement chez l'enfant. Le but de cette observation était d'insister sur l'intérêt pronostic d'un diagnostic précoce.

**Patient et Observation:** B, six mois et demi, sexe masculin, né à terme par voie basse non instrumentale avait un antécédent de transfusion sanguine à deux mois de vie suite à une hémorragie après section d'un frein de langue. Il était le quatrième d'une fratrie de quatre dont un frère ayant un antécédent de saignement facile non documenté. B était admis aux urgences pédiatriques pour hémiparésie gauche. A l'entrée il présentait une température à 36°9 C, un périmètre crânien à 44 cm, une fontanelle antérieure bombante, une paralysie faciale droite, une hémiparésie proportionnelle gauche sans lésion cutanéomuqueuse suspecte de traumatisme. Une tomodensitométrie cérébrale a révélé une volumineuse hypodensité panhémisphérique gauche avec important effet de masse sur les cavités ventriculaires et les structures médianes sans lésion osseuse, en faveur d'un hématome sous dural chronique. Le bilan biologique a révélé une anémie modérée à 9,9g/dl et des plaquettes à 553G/L. Le TCA était à 28,5s, le TP à 100%, le fibrinogène à 3,32g/l, le facteur VIII inférieur à 1 %, les protéines C et S respectivement à 76% et 101%. Une évacuation chirurgicale de l'hématome sous dural a été réalisée. Le taux d'hémoglobine post opératoire était à 4,3

g/dl. B a été transfusé avec deux poches de plasma frais congelé et un culot globulaire. L'évolution ultérieure était simple avec ablation des fils onze jours après l'intervention, bonne cicatrisation de la plaie opératoire et régression complète de l'hémiparésie et de la paralysie faciale.

**Conclusion:** Une hémorragie cérébrale peut révéler une hémophilie majeure et sa prise en charge précoce permet un bon pronostic.

**Mots clés:** Hémophilie A, hémorragie cérébrale.

## P19

### Facteurs environnementaux associés à l'activité de la Polyarthrite Rhumatoïde chez les patients suivis à Cotonou (Bénin)

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## RÉSUMÉ

**Objectif:** Déterminer les facteurs environnementaux locaux associés à l'activité de la polyarthrite rhumatoïde (PR) au Bénin.

**Méthode:** Etude transversale descriptive et analytique ayant porté sur 68 patients atteints de PR, répondant aux critères ACR/EULAR 2010 et ayant accepté de participer à l'étude. L'exposition à certains facteurs environnementaux a été étudiée. Les valeurs collectées ont été saisies et analysées grâce aux logiciels Epi data 3.1, SPSS 20.0.

**Résultats:** Le sex ratio était de 0,04. L'âge moyen des patients était de 35,5 ± 14,1 [5-83] ans. Les facteurs rhumatoïdes étaient présents chez 51 patients (75%) tandis que les Ac anti-CCP étaient présents chez 48 patients (70,6%). Le score moyen DAS 28 était de 3,75 ± 1,2 [1,5-6,7]. 25 patients (36,8%) avaient une activité très faible (DAS28 < 3,2), 31 patients (45,6%) avaient une PR modérément active tandis que 12 patients (17,6%) avaient une activité élevée (DAS 28 > 5,1. Les facteurs environnementaux associés à l'activité de la maladie étaient : fumée domestique (OR=26,2 ; IC=5,2-130,2), la fumée extérieure (OR=17,0 ; IC=7,2-68,2), la cour

de maison sablonneuse (OR=21,5; IC=5,2-88,3), la ventilation nocturne (OR=4,79 ; IC=3,3-18,6, p=0,02). A contrario, l'exposition au soleil (OR=1,1 ; IC=0,3-3,1), la chaleur (OR=0,8 ; IC=0,2-3,4), la climatisation (OR=0,9 ; IC=0,1-5,7), n'étaient pas associées à une activité de la maladie.

**Conclusion:** Dans nos pays à faibles revenus, la maîtrise des facteurs d'environnement pouvant interférer avec l'activité de la PR pourrait être une solution d'avenir pour pallier au coût élevé de la biothérapie.

**Mots clés:** Polyarthrite rhumatoïde, environnement, activité, Bénin.

## P20

### Résultats préliminaires d'enquête CAP sur les risques professionnels associés au travail de concassage artisanal de pierres et leur prévention dans le secteur informel du département des collines au Bénin

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## RÉSUMÉ

**Introduction:** Les ODD mettent l'accent sur le travail décent ; donc présentant moins de risque. Quelle connaissance les concasseurs de pierres ont-ils des risques encourus et quels sont les moyens de prévention qu'ils utilisent?

**Méthode:** Une revue documentaire, un guide d'entretien et un questionnaire ont permis de recueillir des données sur 5 sites dans trois communes du département des Collines puis traiter par SPSS. La taille de l'échantillon a été obtenue par la technique des groupes homogènes d'exposition

**Résultats:** L'étude porte sur 64 sujets âgés de plus de 15 ans, 12 hommes et 52 femmes, soit une sex ratio de 4,3 en faveur des femmes. L'âge médian est 44 ans avec un minimal à 18 ans et un

maximal à 71 ans. La religion chrétienne est dominante (73,8%) suivie des religions endogènes (16,4%). Une personne sur deux n'a pas mis pied à l'école. L'ancienneté moyenne dans le concassage est de 16 ans. Le travail procure moins de 10.000f par mois à trois personnes sur 5. La durée de travail journalière varie de 5 à 12h. La majorité travaille 6 jours par semaine (84,4%)

Les plaintes formulées sont : maux de coeur (59,4%), lombalgies et dorsalgies (12,3%), suivies des accidents (9,4%) et des affections respiratoires (9,4%). Pour 4/5, certaines périodes de l'année seraient plus à risque et pour 45,3%, il s'agit de la saison de pluies. Plus de 77% des personnes reconnaissent qu'il y a des risques spécifiques aux enfants, notamment le risque d'accident.

Pour la prévention, les femmes se mettent pour la majorité en pantalon pour protéger leurs parties intimes. Le port de chaussures n'est pas systématique. Personne ne porte d'équipement de protection des mains, de la vue, de l'ouïe, ou des vies aériennes.

**Conclusion:** Pratiquement aucune précaution devant le caractère dangereux reconnu du travail. On attend des autorités plutôt du matériel pour alléger le travail.

**Mots-clés:** Concassage de pierres, risques professionnels, prévention, secteur informel.

## P21

### ONGOING SURVIVAL WITHOUT ANTICOAGULATION IN A PATIENT WEARING PROSTHETIC MECHANICAL VALVE IN NIGERIA : A CASE REPORT

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**Background:** Prosthetic mechanical valve implantation is becoming commonplace in our environment. As a standard of care, they are required to be placed on long-term anticoagulation to avert thrombosis. This brings about need for regular clotting profile with attendant

costs and risk of bleeding. In our environment where for genetic and dietary reasons lower doses of anticoagulants suffice, chronic anticoagulation is fraught with risks. A few patients have survived for varying periods without anticoagulation while wearing prosthetic mechanical valves ; but no such case has been reported from Nigeria. They provide a cohort that needs careful follow-up so they could be characterized and the experience brought to bear on management of patients with mechanical prosthetic valves. One such case encountered in our practice is hereby reported

**Case Report:** An 89-year-old man who underwent prosthetic aortic valve implantation in 2010 in India returned to Nigeria and discontinued all his drugs when the initial stock ran out. He went on for 8 years without any drug except for oral hypoglycaemic drugs that he was given on development of diabetes. He presented at this point well ; and with no anticoagulation still had INR within the recommended range. But for mild background diabetic nephropathy he was well and has remained so. This makes it a total of 9 years post surgery without anticoagulants, the longest period without anticoagulants reported in a Nigerian wearing mechanical prosthetic valve.

**Conclusion:** It is possible to survive prosthetic mechanical valves without anticoagulants provided INR remained within recommended range. The characteristics of individuals fitting this bill need to be determined so that it could be recommended for them to be on little or no anticoagulation after mechanical prosthetic valve placement.

**Keywords:** Mechanical prosthetic valves, Anticoagulation, Without, Survival.

## P22

### Facteurs associés à l'hypertension artérielle chez les enfants âgés de 8 à 11 ans dans les écoles primaires de Cotonou en 2015

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**Introduction:** L'hypertension artérielle est un problème de santé publique à l'échelle mondiale. Cette étude avait pour objectif d'étudier les facteurs associés à l'hypertension artérielle chez les enfants âgés de 8 à 11 ans des écoles primaires de Cotonou au Bénin en 2015.

**Méthode:** Il s'est agi d'une étude transversale descriptive à visée analytique dont la collecte des données s'est déroulée du 1er juin au 30 juin 2015. L'enquête a été menée auprès de 182 enfants âgés de 8–11 ans dans quatre écoles primaires de Cotonou. La moyenne des trois lectures de la tension artérielle a été utilisée pour la pression artérielle systolique et la pression artérielle diastolique au cours de l'analyse. Une analyse multivariée a permis d'identifier les facteurs associés.

**Résultats:** La prévalence de l'hypertension était de 9,34% chez les écoliers. Dans l'analyse multivariée, l'activité physique (ORaj= 4,01 ; IC à 95% de 1,54–104,01 et p=0,000), le pourcentage de gras corporel (ORaj= 25,18, IC à 95% de 1,63–388,25 et P= 0,02) et le tour de taille (ORaj = 10,40, IC à 95% de 19,99–541,19 et P= 0,001) étaient les facteurs associés à l'HTA chez les écoliers.

**Conclusion:** la mise en place des mesures préventives ciblant les habitudes de vie et le dépistage précoce de l'hypertension artérielle chez les écoliers âgés de 8 à 11 ans aussi bien en milieu scolaire qu'à l'échelle familiale est une nécessité.

**Mots clés:** Facteurs associés, hypertension artérielle, enfants de 8 à 11 ans, écoles primaires, Cotonou, Bénin.

## P23

### Carcinome épidermoïde sur lichen cutané verruqueux : un cas à Parakou (Bénin)

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## RÉSUMÉ

**Introduction:** Nous rapportons un cas

inhabituel de carcinome épidermoïde sur un lichen cutané verruqueux d'évolution chronique, pris en charge au CHU Borgou/Alibori à Parakou (Bénin).

**Observation:** Une femme de 75 ans béninoise, aux antécédents d'hypertension portale sur cirrhose post-virale C traitée avec négativation de la charge virale, avait consulté pour une vaste ulcération chronique du dos du pied droit. Le début de la symptomatologie remonterait à 30 ans environ, marqué par des lésions papuleuses lichénifiées prurigineuses; ces lésions seraient assimilées initialement à un eczéma puis à une mycose, par du personnel de santé non spécialisé en dermatologie et multitraitée par des topiques non précisés. L'état général était altéré. L'examen dermatologique découvrirait outre l'ulcération, des plaques de lésions lichéniennes hyperpigmentées, non homogènes et bien limitées de topographie symétrique sur les membres pelviens rendant difficile la marche. L'examen anatomopathologique du prélèvement biopsique de l'ulcération et ses bords évoquait un lichen cutané hypertrophique associé au carcinome épidermoïde kératinisant, infiltrant. Le scanner thoraco-abdomino-pelvien montrait l'absence de métastase. Une amputation de toute la jambe et du genou droits a été réalisée après un entretien psychologique. Les suites opératoires ont été marquées par une surinfection du moignon d'amputation par l'*Escherichia coli* ; traitée avec succès. Cicatrisée, elle est en attente d'un appareillage orthopédique et d'une chimiothérapie éventuelle.

**Conclusion:** Ce cas clinique dénote de la nécessité d'une prise en charge adéquate de certaines dermatoses potentiellement précancéreuses, afin de limiter l'évolution vers la transformation carcinomateuse.

**Mots clés:** Lichen cutané verruqueux, carcinome épidermoïde, amputation, Bénin.

## P25

### ANALYSING THE FEASIBILITY OF HEALTH EDUCATION THROUGH SOCIAL MEDIA AMONG UNDERGRADUATE IN ENUGU STATE

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## ABSTRACT

**Introduction:** Health education is an essential vehicle through which basic principles of health are taught. It aids the translation of what is known about health into desirable individual and community behavior pattern. With the current increasing use of social media, the concept of health education through social media will prove to have several advantages. This study aims at analyzing the feasibility of health education through social media, as well as the factors that could lead to acceptance of health information on social media.

**Methodology:** A descriptive cross-sectional study involving 297 undergraduates of three higher institutions in Enugu State, using multistage sampling technique and structured self-administered questionnaires. The data collected were analysed using IBM SPSS Version 21.

**Results:** The awareness of social media was quite high with 99.3% knowing about social media and admitting ownership of smart device(s) for accessing the internet. The most used social media was WhatsApp (79.1%) followed by Facebook (74.7%), Instagram (51.2%) with (27.3%) using twitter. Majority of the respondents who used social media, (87.5%), accessed it daily while 9.4% and 2.1% accessed it on a weekly and monthly basis respectively. Socializing was the main activity carried out by respondents on social media followed by entertainment with medical advice being the least. Most of the participants found their valuable health information on Facebook and through Google. Majority (94.3%)

agreed that information from trained health professionals, verified and reliable sources enhance acceptance while the converse hinders acceptance of health information from social media. 59.6% of the respondents recommended the use of social media for health education.

**Conclusion:** Despite the increasing social media traffic there are still barriers to the complete acceptance of health information on social media among undergraduates in Enugu State. Hence need for more sensitization on health education through social media channels.

## P26

### ACTIVITIES OF MANUAL EXPLOITATION OF RIVER SAND IN BENIN: WHAT ARE THE RISKS FOR HEALTH?

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#### ABSTRACT

**Introduction:** The work in the informal economy remains very poorly documented in terms of risks, resources, etc. This study aims to describe the working conditions and to identify factors of risk to workers of manual operating career of river sand.

**Methods:** This is a cross-sectional study was conducted from September 15 to October 13, 2014 in the Oueme valley in the southeastern of Benin. Five (5) career sites were included in the study based on the regularity of their operations and ninety-nine (99) workers were surveyed after their informed consent.

**Results:** Respondents workers were composed of 55.5% women against 44.5% men with a mean age of  $32 \pm 2$  years. The seniority in the career ranged from 1–35 years with an average of 9 years. In terms of risk, seven cases of drowning have been reported at two sites within 5 years. The weight of loads carried on the head ranged from 50–110 kg. The work takes place in almost permanent moisture. In these working conditions, 69.7% of subjects deemed the work unacceptable while 30.3% found it acceptable.

**Discussion:** The career of manual operation of river sand as conducted and because of the hardship that charac-

terizes the activity is a dangerous and unacceptable form of work.

**Conclusion:** This informal industry requires closer study including ergonomic and physiological aspects of work to appropriate preventive measures of risk.

**Keywords:** Informal Sector, Labour, Health.

## P27

### Hémolyse intravasculaire et paludisme grave en pédiatrie au CNHU de Cotonou

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**Introduction:** L'hémolyse intravasculaire est une complication possible au cours du paludisme avec risque d'atteinte rénale. Ce travail avait pour objectif de déterminer la fréquence hospitalière de l'hémolyse intravasculaire en cas de paludisme grave et les facteurs qui y étaient associés.

**Méthodes:** L'étude était prospective et analytique couvrant la période d'avril à Juillet 2017. Étaient inclus de façon exhaustive tous les enfants d'un mois à 18 ans, hospitalisé pour paludisme grave selon les critères 2015 de l'Organisation Mondiale de la Santé, et ayant une goutte épaisse positive. Les variables d'étude étaient l'âge, le sexe, le traitement reçu avant l'admission, les antécédents personnels, l'insuffisance rénale, la durée de l'hémolyse intravasculaire. La comparaison des proportions était faite avec le test de Chi<sup>2</sup>. Le seuil de significativité retenu était de 5%.

**Résultats:** La fréquence hospitalière de l'hémolyse intravasculaire était de 24,2% (107 cas sur 442 cas de paludisme grave). La sex-ratio était de 1,27. Une administration de quinine avant l'admission était retrouvée dans 15,8% des cas, et 3% des enfants avait un antécédent d'hémolyse intravasculaire. Dans l'évolution une insuffisance rénale était présente chez 9,2% des enfants, et le délai moyen de l'arrêt de l'hémolyse

intravasculaire était de  $3,49 \pm 3,19$  jours. Les facteurs associés à l'hémolyse intravasculaire étaient l'âge supérieur à 60 mois ( $p=0,000019$  OR=2,23 [1,60-3,09]), le coma ( $p=0,004$  OR=0,53 [0,34 ; 0,82]), l'ictère ( $p=0,001$  OR=0,32 [0,16 ; 0,66]), l'hyponatrémie ( $p=0,0002$  OR=0,31 [0,16 ; 0,59]).

**Conclusion:** Bien qu'elle ne soit plus un critère de gravité du paludisme, la recherche de l'hémolyse intravasculaire devrait être systématique en présence de ces facteurs de risque.

**Mots clés:** Hémolyse - enfant – paludisme grave.

## P28

### Place des déterminants sociaux de la santé dans le système d'information sanitaire du Bénin en 2019 : point de vue municipal

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#### RÉSUMÉ

**Introduction:** Le rôle du système d'information sanitaire (SIS) est de produire, d'analyser et de diffuser des données fiables favorisant la prise de décisions de santé publique. Au Bénin, le SIS est fragmentaire et ne répond pas convenablement aux besoins. Les déterminants sociaux de la santé ne sont pas pris en compte dans la collecte et l'analyse de l'information sanitaire. L'objectif était d'identifier, du point de vue des acteurs municipaux, les données manquantes du SIS favorisant la prise de décisions adéquates dans l'amélioration de la santé des populations.

**Méthodes:** Un entretien individuel approfondi avec les acteurs municipaux de Parakou, choisis selon leur expertise, a été organisé de janvier à février 2019.

**Résultats:** Au total, 23 acteurs ont été interviewés. Il n'y a pas d'agents de santé parmi le personnel municipal de Parakou.

Les principaux problèmes perçus localement et qui devraient disparaître dans le SIS sont la pauvreté (26,08%), la toxicomanie (21,73%), la sécurité alimentaire (17,39%), l'analphabétisme (13,04%). Il sera nécessaire de réorganiser l'administration sanitaire (43,47%), développer le partenariat entre acteurs sanitaires et sociaux (21,73%), améliorer la littératie en santé du public (17,39%) et, élaborer une politique de santé municipale (13,04%).

**Conclusion:** La perspective des Objectifs du développement durable exige la réorganisation et le fonctionnement du système sanitaire au niveau local qui favorisent la collecte des données du SIS visant les causes des causes.

**Mots-clés:** Système d'information sanitaire, Déterminants sociaux de la santé, Objectifs du développement durable, Municipalité, Bénin.

## P29

### CONDITIONS ASSOCIATED WITH MORTALITY AMONG HOSPITALIZED PATIENTS IN THE MEDICAL WARD OF THE JOHN F KENNEDY MEDICAL CENTER – MONROVIA, LIBERIA

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#### ABSTRACT

**Background:** Although Mortality as an outcome of hospital admission on medical wards has been studied extensively with rates ranging from 12.6% to 23.9% in Sub-Saharan Africa, there is no mortality data at John F. Kennedy Medical Center.

**Objective:** To determine the disease conditions that result into mortality among hospitalized patients in the medical ward.

**Methodology:** John F. Kennedy Medical Center is the main tertiary referral hospital in Liberia and also serves as a teaching hospital for the A.M. Dogliotti College of Medicine, University of Liberia, the Liberia College of Physicians and Surgeons plus the Tubman National Institute of Medical Arts. We carried out

a 3-year retrospective chart review for all deceased patients admitted on the JFKMC medical ward between January 2013 and May 2016. The study period excluded July 2014 to January 2015 as the medical ward was closed to admissions due to ongoing Ebola Viral Disease (EVD) outbreak. Six (6) medical records were incomplete and excluded from the study. A structured questionnaire was used to extract data from charts of deceased patients.

**Results:** There were 2,673 admissions with 689(25.7%) deaths. Among the deceased, 353(51.2%) were Females. The disease conditions resulting in mortality were ; HIV/AIDS related 241(35.0%), stroke 136 (19.7%), Heart failure 64(9.2%), Chronic Liver Disease 63(9.1%), Diabetes Mellitus related complications 50(7.3%), Sepsis 43(6.2%), Tuberculosis 35(5%), Malignancies 26(3.8%), Renal failure 16(2.3%) and others 15 (2.2 %).

**Conclusion:** In this study, the mortality rate due to HIV/AIDS is significantly high. There may be need for an increased, vigorous targeted public awareness, increased voluntary Counseling & testing, plus early treatment in Liberia. The most common disease conditions that resulted into mortality were HIV/AIDS related, stroke, heart failure, chronic Liver disease, diabetes mellitus and sepsis.

## P30

### STROKE IN THE YOUNG ADULTS: DO CARDIAC RISK FACTORS, CLINICAL AND ANTHROPOMETRIC CHARACTERISTICS DIFFER FROM THAT IN OLDER PATIENTS?

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**Introduction:** Modifiable risk factors for cardiovascular disease such as obesity and smoking are becoming more prevalent in younger population. Stroke accounts for about 9% of deaths in medical wards in Nigeria. Existing

literatures suggest that non-modifiable risk factors may account for a higher percentage of cardiovascular diseases in the young stroke patients, unlike a majority of modifiable factors in elderly populations such as diabetes mellitus, cigarette smoking and a higher incidence of hypertension in later life.

**Aim:** This study was to determine the prevalence, pattern and predictors of traditional cardiovascular risk factors in young versus older adult patients who have suffered a stroke.

**Methods:** An interviewer administered proforma was used to obtain socio-demographic and other clinical data from 180 stroke patients (90 in each group – older versus young) and data analysed using IBM-SPSS version 23.0.

**Results:** There were more males than females in both groups of patients with young patients having a higher family history of stroke compared to older patients. The prevalence of cardiac risk factors was higher in older compared to the young patients. While 92.2% of older group and 84.4% of young patients were hypertensive, diabetes mellitus, cigarette Smoking and alcohol ingestion were also higher in older patients. Younger patients were more obese using abdominal circumference assessment while old patients tend to have Obesity using BMI. Of all cardiac risk factors, hypertension had the highest prevalence in both groups.

**Conclusion:** Cardiac risk factors/anomalies are prominent in both old and young stroke patients thus a major contributory factor to the occurrence of strokes. Most of these factors are modifiable and as such patient education and lifestyle modification is strongly advised.

## P31

### MENTAL HEALTH, SOCIOECONOMIC STATUS, AND EXPERIENCE OF INCARCERATION IN NORTH CENTRAL NIGERIA: A SITUATION ANALYSIS OF MAKURDI MEDIUM SECURITY PRISON

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## ABSTRACT

**Background:** Conditions in prison and detention center in Nigeria are recognized as harsh. While the prevalence of mental conditions is high, access to appropriate healthcare facilities is grossly inadequate. The mental health situation of prisoners in north central Nigeria is unknown.

**Aim:** The aim of the study was to assess the mental health, social and economic status of prison inmates in Benue State, Nigeria.

**Methods:** A cross-sectional study was carried out at a single time-point with a random sample of 381 prison inmates of Benue State Makurdi Medium Security Prison. Survey tools comprised a socio-demographic questionnaire, questions on participants' experiences of prison facilities, and the Patient Health Questionnaire (PHQ-9) to screen for symptoms of depression.

**Results:** The mean age of respondents was 27.95 ± 7.08 years with a majority, 320 (84.0%) aged 15-34 years. Most were males, 364 (95.5%) and 242 (63.5%) had completed secondary education One hundred and forty-four (37.8%) of the respondents screened positive for depression, though only 27 had been

identified by prison authorities as having a mental health problem. Eight reported mental health problems that started before imprisonment, and six were already taking medication for these problems at the time of imprisonment. However, at the time of the survey, only four had received medication while in prison. 26 had received professional counseling while in prison. Over half of all respondents (198, 52.0%) were dissatisfied with prison health care.

**Conclusions:** Although the prevalence of depression among the prison population is high, few cases are detected and treated, and the care available is generally considered poor. Inadequate mental health and social care not only affects mental well-being in prison, but may also impact recidivism and health outcomes upon release from prison. Therefore we recommend integration of mental health into prison mental health services in Nigeria.

## P32

### Revue sur les facteurs associés à la prématurité au Togo.

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**Introduction:** Le taux de prématurité était de 13,3% en 2010 au Togo avec une létalité de 30,1%. Elle constitue l'une des premières causes de mortalité néonatale. L'objectif de la présente revue était d'analyser les facteurs associés à la prématurité au Togo.

**Méthodologie:** Il s'agit d'une revue de la littérature sur la prématurité (terme entre 22 – 36 SA 6 jours) au Togo. Quatre études récentes (2016–2018) ont été exploitées, réalisées dans différentes maternités : a) CHU Sylvanus Olympio, hôpital de

référence national, sis à Lomé en 2017; b) CHR – Lomé Commune en 2018 ; c) CHR - Tsevié dans la région maritime en 2016; d) CHU – Kara dans le Nord en 2017. Les facteurs épidémiologiques, étiologiques associés à la prématurité ont été analysés.

**Résultats:** La fréquence de la prématurité était de 12,44% au CHU Sylvanus Olympio, de 3,90% au CHR Lomé Commune, de 8,25% au CHR-Tsevié et de 7,1% au CHU – Kara. La moyenne d'âge des mères allait de 27 à 30 ans d'un hôpital à l'autre. L'accouchement par voie basse était prédominant. Les prématurés avaient un terme compris entre 31 SA et 36 SA et 6 jours. Leurs poids de naissance variaient de 870 à 2 490 grammes. Les facteurs de risque maternels observés étaient le célibat, le nombre de consultations prénatales < 3. Dans les quatre travaux, les pathologies maternelles influençant significativement la prématurité étaient le paludisme, la prééclampsie/éclampsie et les ruptures prématurées de membranes. Les grossesses multiples étaient le principal facteur de risque de prématurité lié au foetus.

**Conclusion:** L'accouchement prématuré est fréquent et entraîne un risque de morbidité et de mortalité néonatale. Une meilleure accessibilité géographique et l'assurance santé universelle pourraient améliorer la surveillance des grossesses au Togo.

**Mots-clés:** Facteurs associés, prématurité, Togo.

## P33

### Etat des lieux de la mortalité néonatale dans un hôpital périphérique à ressources faibles

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## RÉSUMÉ

**Introduction:** Au Bénin, la mortalité néonatale stagne autour de 34±2 % depuis ces dix (10) dernières années. L'hôpital de zone de Comé (HZC) de

faibles ressources, objective un taux de mortalité hospitalière néonatale élevé. La présente étude a été initiée afin d'identifier le profil des nouveau-nés décédés en hospitalisation.

**Patients et Méthodes:** Il s'agit d'une étude épidémiologique, descriptive avec collecte prospective des données des nouveau-nés (0-28 jours) décédés dans l'unité de néonatalogie durant la période allant du 1er Juin 2018 au 30 Mai 2019. Les données recueillies sur une fiche d'enquête pré-établie, ont été traitées dans le logiciel Epi info 7 project.

**Résultats:** Pendant la période d'étude, 726 nouveau-nés ont été consultés dans le service. 348 ont été hospitalisés avec 73 cas de décès en hospitalisation, soit une morbidité de 47,93% (n= 348/726) et une mortalité de 20,97% (n=73/348). La sex-ratio était de 1,43. La majorité (68% ; n=50/73) des nouveau-nés décédés étaient nés à la maternité de l'HZC. L'admission dans les 24 heures était constatée dans 68% des cas (n= 50/73). Les grossesses étaient mal suivies dans 68% des cas. On notait 37% de prématurés (n= 27/73) et 55% de faibles poids de naissance (n=40/73). La moitié des nouveau-nés décédés était réanimé à la naissance (47% ; n = 34/73). Les affections ayant conduit à ces décès étaient majoritairement : les infections néonatales (56% ; n = 41/73), l'asphyxie périnatale (38% ; n=28/73) et les troubles métaboliques (40% ; 29/73).

**Conclusion:** un meilleur suivi des grossesses associé à une surveillance rigoureuse du travail d'accouchement pourraient permettre de réduire la morbi-mortalité néonatale à l'HZC.

**Mots-clés:** Morbi-mortalité hospitalière, Nouveau-nés, Décès, HZC.

### P34

#### **BUILDING CONSENSUS ON NON-COGNITIVE COMPETENCIES REQUIRED FOR MEDICAL PRACTICE IN NIGERIA: NOMINAL GROUP TECHNIQUE**

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**Introduction:** Ethical and competent practice of medicine requires health professionals to possess a range of personal qualities in addition to high-level of academic abilities. Current trends make it increasingly clear that today's clinician needs strong foundation in medical knowledge coupled with non-cognitive skills for effective communication, teamwork, ethical behavior and display of the highest level of professionalism in patient management. This study was undertaken to determine the non-cognitive competencies required for medical practice within the Nigerian context.

**Methods:** We proceeded in two sequential steps to identify and create a prioritized list of behavioural competencies in terms of value for client-doctor relationship and value for relationship with colleagues. At the first stage, we conducted a scoping review of literature from developed and developing countries to identify specified behavioural competencies required for medical practice. Nominal Group Technique (NGT) was then employed to build consensus on behavioural competencies that are specifically required for medical practice in Nigeria. NGT is a group consensus-building method that aggregates the opinions of individuals with experience of or important perspectives on the phenomenon. Its structured process helps to reduce the influence of dominant speakers in group interactions, ensuring that individual voices do not skew the debate. Participants consisted of medical students and medical doctors in clinical departments namely, medicine, surgery, paediatrics, obstetrics and gynaecology.

**Results:** The initial list of competencies was refined and condensed by merging and linking similar ideas. Having agreed on a comprehensive list of distinct behavioural competencies, each participant was asked to select 5 competencies and to rank them (on index cards) by importance from 5 (most important) to 1 (least important). The top five non-cognitive competencies were generated using an algorithm that weighted participants' votes according to their rankings. Voting and ranking were done simultaneously for behavioural

competencies required in doctor-client relationship and doctor-colleague relationship. The top five behavioural competencies required for doctor-client relationship include effective communication, patient-centeredness, ethical responsibility, patience and empathy. The top five behavioural competencies required for relationship with colleagues include teamwork, effective communication, team leadership, respect for authority/colleagues and probity.

### P35

#### **PREVALENCE OF HIV AMONGST CLIENTS ACCESSING HIV COUNSELLING AND TESTING SERVICES IN A TERTIARY TEACHING HOSPITAL IN SAGAMU, SOUTH WESTERN NIGERIA**

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#### **ABSTRACT**

**Introduction:** There's been a reduction in the AIDS-related deaths in Sub-Saharan Africa without a commensurate reduction in new HIV infection. Knowing one's HIV status via client initiated HIV counselling and testing is beneficial in reducing risk of HIV transmission. This study accessed the prevalence and sexual risk factors associated with HIV infection in Olabisi Onabanjo University Teaching Hospital (OOUTH) Sagamu Ogun State.

**Methods:** This is cross sectional study of the clients accessing HCT services in OOUTH between July and December 2018. Data was collected from clients using a client intake form. Pre-test counselling, HIV screening and post-test counselling were carried out. Informed consent and confidentiality were ensured. Data obtained were analysed using SPSS 20.0.

**Results:** A total of 1091 clients accessed the HCT services between July and December 2018. The clients were between the ages 1 and 89 years old, with the mean age being 36 years. One hundred and fourteen (10.4%) of clients tested positive for HIV. Among the positive result, 41 (36%) were male while 73 (64.0%) were female.

**Conclusion:** HIV prevalence is still high; 10.4%. There is association between sexual engagements and HIV infection is statistically significant ( $p=0.021$ ). There is need for more health education about other ways by which HIV is transmitted to reduce the prevalence of the disease.

**Key words:** HIV counselling and testing (HCT) services, HIV Infection.

### P36

#### COMPARISON OF SERUM LEVELS OF LUTEINIZING HORMONES, FOLLICLE STIMULATING HORMONES, PROLACTIN AND OESTRADIOL IN INFERTILE AND FERTILE WOMEN ATTENDING CLINICS IN AHMADU BELLO UNIVERSITY TEACHING HOSPITAL (ABUTH), ZARIA, NORTH WESTERN NIGERIA

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**Introduction:** Worldwide, infertility is common among couples, and impacts greatly on their psychological and emotional health. Serum levels of reproductive hormones are associated with infertility and vary between primary and secondary infertility.

**Objective:** The study assessed and compared serum levels of luteinizing hormones (LH), follicle stimulating hormones (FSH), prolactin and oestradiol.

**Materials and Methods:** Blood samples were collected from 47 primary infertile, 78 secondary infertile and 125 apparently healthy women, and levels of the four hormones were assayed using the standard precision profiles in each case. Their mean levels and standard deviation were computed and compared. Independent sample t-test was used to test for statistical significance of difference between apparently healthy women and the primary and secondary infertile women, at  $p<0.05$ .

**Results:** Mean age of women with primary infertility was  $29.0 \pm 6.2$  years, of those with secondary infertility  $30.5 \pm 5.7$  years, and of the apparently healthy  $30.4 \pm 5.8$  years. Serum levels of each of the hormones were individually higher in the primary and secondary infertile women than in the apparently healthy women (the p-values were all less than 0.05), except LH which did not show statistically significant difference between the primary infertile women and the apparently healthy women ( $p = 0.7490$ ).

**Conclusion:** Serum levels of LH, FSH, prolactin and oestradiol were mostly higher in women with infertility. If done routinely, serum levels of these hormones could help in diagnosing infertility in women with history suggestive of it.

### P37

#### Appréciation de la qualité scientifique des thèses traitées à la chaire de pédiatrie de Conakry de 2008 à 2017

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**Introduction:** La thèse de médecine est une dissertation scientifique rapportant un travail de recherche marquant la fin des études universitaires. L'objectif de ce travail était d'évaluer la qualité scientifique des thèses traitées en pédiatrie.

**Méthode:** Il s'agit d'une étude évaluative analysant la conformité aux normes IMRAD des thèses (459). Les informations ont été collectées à l'aide

d'un questionnaire utilisant les éléments du plan d'un article original et une échelle à score binaire 0 (réponse incorrecte), 1 (réponse correcte), classant les items en bonne qualité (toutes les modalités sont réalisées) ou mauvaise. Pour chaque rubrique le score total obtenu est multiplié par 100. La qualité globale a été déterminée en faisant le score global des items. Un bon score  $> 80\%$ . Les données ont été saisies sur EPIDATA 3.0, analysées à l'aide de SPSS 22.

**Résultats:** La tranche 28-32 ans était de 64,7% [23-52 ans]; le sexe masculin 61%. Le lieu d'application était le niveau central (41 %), intermédiaire (15,9 %), périphérique (43,1 %). 93% d'études descriptives abordant les pathologies infectieuses (47,7%), la malnutrition (23,1%), le paludisme (15,3%), le VIH/SIDA (4,1%), la drépanocytose (3,3%). Le score de la discussion à 66%. L'aspect éthique abordé dans 24%, la base des données exploitable dans 66 thèses. Aucune thèse n'a été publiée. Le score global était mauvais dans 69% (IC95% : 61%-69,7%).

**Conclusion:** Ce travail pourrait permettre aux thésards et leurs encadreurs d'apprendre à rédiger avec plus de rigueur scientifique.

**Mots clés:** Qualité, thèses, IMRAD, recherche.

### P38

#### PARIETAL LOBE TUBERCULOMA PRESENTING AS GLIOBLASTOMA IN AN ADULT MALE: A CASE REPORT

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#### ABSTRACT

**Introduction:** Tuberculosis (TB) affecting the central nervous system (CNS) though uncommon, is the commonest type of chronic CNS infection in developing



countries. Tuberculoma within the CNS may produce unusual neurological symptoms.

**Case Presentation:** We describe a case of a 38-year old African male who presented with a three months duration of recurrent headache, right hemibody weakness and speech difficulty of about three weeks duration. On CNS examination, there was mild facial nerve weakness of upper motor neuron type, memory impairments, personality changes and acalculia. Features of brain MRI scan were in keeping with glioblastoma. Patient underwent bifrontal craniotomy with complete tumour excision. A diagnosis of brain tuberculoma was made based on histopathology findings. Patient was commenced on anti-TB medications. Two months on treatment, patient's headache and memory impairments had resolved. He made significant improvement in his speech and hemiparesis has improved on both extremities.

**Conclusion:** Though brain tuberculosis is rare, it can be diagnosed on the basis of histopathology. Prognosis is good once patient is commenced on the recommended medication and dosage. Presently, our patient remains well and has shown good response to treatment.

**Keywords:** Tuberculosis, Tuberculoma, Glioblastoma, Central Nervous System.

### P39

#### INVESTIGATION OF A CHOLERA OUTBREAK IN KATSINA STATE, NORTH-WEST, NIGERIA, 2018

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**Introduction:** Cholera remains a public health problem in sub-Saharan Africa despite availability of an effective intervention for prevention and control. On 25th of May 2018, the Funtua local government area (LGA) surveillance officer reported an outbreak of cholera in Funtua, Katsina State, Nigeria. We investigated the outbreak to characterize it, identify the risk factors and institute control measures.

**Methods:** We conducted an unmatched case-control study. A case was any resident of the affected LGAs of Katsina State, two years and above with acute watery diarrhea with or without vomiting from 15th May to 7th November, 2018, while a control was any resident of the affected LGAs without acute watery diarrhea and vomiting. We collected data on socio-demographic characteristics and potential risk factors using a structured interviewer-administered questionnaire. We calculated frequencies and proportions to characterize the outbreak in time, place and person. We conducted bivariate and multivariable analysis to identify associated factors by estimating adjusted odd ratios (AOR) and 95% confidence intervals (CI).

**Results:** A total of 7,838 cases were line listed of which 3,734 (47.7%) were males. Median age was 12 (range : 1–85) years. The overall attack rate was 9.5/100000 and case fatality rate was 2.5%. *Vibrio cholerae* 01 was isolated in 206 (74%) by culture. Thirty-four LGAs were affected, but more than 50% of cases occurred in four LGAs. The settlement affected were mostly along the river bank. Educational level (AOR=0.359; 95% CI: 1.211–0.610), Occupation (AOR=0.503; 95% CI: 0.287–0.882) and source of drinking water (AOR=0.487; CI: 0.268–0.886) were factors

associated with the cholera outbreak.

**Conclusions:** The sources of the outbreak were unprotected wells and close contact with a case. Five cholera treatment centers set up, community sensitization with health education on importance of personal hygiene and disinfection of the wells carried out with sanitary wells provided to affected community.

**Keywords:** Risk Factors, Cholera, Katsina State. 2018.

### P40

#### PREDICTORS OF STANDARD PRECAUTION PRACTICE AMONG HEALTH CARE WORKERS IN A TERTIARY HEALTH FACILITY IN ENUGU METROPOLIS, NIGERIA

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**Introduction:** Standard precautions (SP) are precautionary measures designed to reduce the transmission of micro organisms in healthcare settings. The aim of SP is to protect both the Health Care Worker (HCW) from being infected and uninfected patient from getting infected. This study was designed to assess the predictors of the practice of SPs among HCWs in a tertiary health facility in Enugu Metropolis, Nigeria.

**Methods:** This descriptive cross sectional study used mixed methods approaches. It involved all the HCWs (nurses, laboratory scientists/technicians, nurse assistants/CHEWs and orderlies) directly involved in patient care. Two hundred eligible HCWs were used for the study. The quantitative data instrument was a pre-tested self administered questionnaire. The qualitative data was collected using an in-depth interview (IDI) guide and fifteen HCWs were randomly selected and interviewed. Quantitative data was analysed using SPSS version 22 with significance level placed at p<0.05. Manual content analysis was done for the qualitative data. Open coding was used to identify emergent themes and selective coding was used to identify relevant texts.

**Results:** A higher proportion of the HCWs with secondary education or less had good practice of SP when compared to HCWs with tertiary education and the difference in proportion was statistically significant ( $p < 0.001$ ). The orderlies had the highest proportion with good practice of SP (55.6%) when compared to other group of HCWs ; laboratory scientist/technicians (41.7%), medical doctors (28.6%) and nurse/CHEWs (20.9%). The difference in proportion was statistically significant ( $p = 0.005$ ). The main reason why HCWs do not adhere to SP was non availability of materials for SP. Others were lack of knowledge of SP, laxity and many patients to attend to.

**Conclusion:** Higher level of education does not translate to better practice of SP. Availability of infection control supplies is paramount for good practice of SP.

**Keywords:** Standard Precautions, Health Care Workers, Enugu Metropolis.

#### P41

**Profil épidémiologique, topographique et thérapeutique de la maladie thromboembolique veineuse au cours des cancers digestifs dans le service d'hépatogastroentérologie du Centre National Hospitalier Universitaire de Cotonou**

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#### RÉSUMÉ

**Introduction:** Le risque de développer une maladie thromboembolique veineuse (MTEV) est 4 fois plus élevé en cas de cancer. L'objectif de ce travail était de déterminer le profil épidémiologique, topographique et thérapeutique des MTEV sur cancer digestif dans le plus grand centre hospitalier du Bénin.

**Méthodes:** Il s'agissait d'une étude rétrospective descriptive et analytique sur la période du 1er janvier 2017 au 30 juin 2018. Elle incluait les patients suivis pour cancer à la clinique universitaire d'hépatogastroentérologie du CNHU-HKM de Cotonou.

**Résultats:** Sur 45 cas de cancers digestifs colligés, 11 (24,4%) présentaient une MTEV. L'âge moyen était de  $49,1 \pm 22,9$  ans avec une sex-ratio de 4. Le carcinome hépatocellulaire (CHC) était plus fréquent avec 26 cas (57,8 %), suivi des cancers du pancréas dans 9 cas (20%) et de l'estomac dans 6 cas (13,3%). Le cancer du pancréas et le CHC étaient les deux pourvoyeurs de MTEV dans ce travail (4/9 soit 44,4% versus 7/26 soit 26,9%). Comme facteur de risque de MTEV, l'âge  $> 65$  ans ( $p = 0,001$ ) était trouvé ; le stade clinique de la tumeur ne ressortait pas significativement ( $p = 0,321$ ). Les MTEV touchaient la veine porte dans 6 cas (54,5 %), l'artère pulmonaire dans 4 cas (36,4 %), la veine iliaque (1/11 soit 9,1%). Neuf cas de MTEV (81,8%) avaient bénéficié d'une anticoagulation à base d'héparine de bas poids moléculaire dont 7 (77,8%) sur une durée supérieure à 3 mois.

**Conclusion:** Le cancer du pancréas est le cancer le plus thrombogène. L'âge supérieur à 65 ans est le facteur de risque de survenue des MTEV dans ce travail. Il penser à la prévention des MTEV dans les cancers digestifs, a fortiori en cas de cancer du pancréas chez les sujets de plus de 65 ans.

**Mots clés:** Cancers digestifs, maladie thromboembolique veineuse, épidémiologie.

#### P42

**Dépistage communautaire du paludisme chez l'enfant**

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#### RÉSUMÉ

**Introduction:** L'hyperparasitémie est l'un des critères de gravité du paludisme grave (PG). Devant le constat de la récurrence des cas de PG avec hyperparasitémie dans une même fratrie ou voisinage, cette étude sur l'entourage des cas d'hyperparasitémie a été initiée pour dépister et traiter rapidement les enfants vivant dans le même environnement qu'un cas de PG avec hyperparasitémie. Ce qui éviterait l'évolution vers la forme grave voire le décès.

**Patients et Méthodes:** Il s'agissait d'une étude prospective, descriptive et analytique réalisée d'avril à octobre 2018. Elle a été conduite sur les enfants d'un mois à 15 ans vivant dans l'entourage des cas de PG avec hyperparasitémie suivis dans le service de Pédiatrie du CHU-MEL. Les enfants vivants dans l'entourage des cas avec hyperparasitémie bénéficiaient d'une entrevue clinique avec réalisation du test de diagnostic rapide (TDR) du paludisme et une goutte épaisse (GE) en cas de positivité suivi d'une prise en charge médicamenteuse conséquente. Les données étudiées étaient épidémiologiques, cliniques, thérapeutiques et évolutives.

**Résultats:** Durant la période d'étude, 906 cas de PG avaient été admis. La fréquence du PG avec hyperparasitémie était de 6,29%. Parmi les 222 enfants recensés autour de ces cas, 176 présentaient un TDR positif. La GE était positive chez 56,82% d'entre eux. Le paludisme était symptomatique dans 15% des cas ( $n = 15$ ). L'hyperparasitémie des cas index était statistiquement liée à la positivité de la GE des enfants dépistés dans la communauté ( $p = 0,027$ ). Tous les cas étaient traités selon les recommandations nationales et l'évolution était favorable

à 100% et à 87, 71% respectivement chez les enfants dépistés et les cas index.

**Conclusion:** Le dépistage communautaire du paludisme des enfants vivants autour des cas d'hyperparasitémie palustre pourrait représenter une nouvelle stratégie de lutte contre le paludisme.

**Mots clés:** Paludisme grave, hyperparasitémie, dépistage communautaire, enfant. Community screening for childhood malaria.

#### P43

### IMPACT OF ANTIROTAVIRUS IMMUNIZATION AT SOKODE (TOGO)

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**Introduction:** Rotavirus is the leading cause of severe acute gastroenteritis (AGE) and dehydration in children worldwide. The monovalent rotavirus vaccine has been introduced into the expanded program of immunization in Togo since June 2014. The purpose of this work was to measure the impact of vaccination on children's AGE at the Regional Hospital Center (RHC) of Sokode in Togo.

**Methodology:** This was a comparative retrospective study of the "before and after" type. It compared the morbidity related to AGE in children under 5 years of age, for the period before the introduction of the rotavirus vaccine (year 2013 and 1st semester 2014) and the period after (2nd semester 2014 and year 2015) in the pediatric ward of the RHC of Sokode. Rotavirus was detected by the ELISA test in stool samples that were sent to Lome as part of sentinel surveillance.

**Results:** between 2013 and 2015, 365 cases of children under 5 years of age were included. The average age of the children was about 21 months. The male sex was predominant. The prevalence of AGE registered in hospital has been

reduced from 4.80 to 1.20% ( $p < 0.0001$ ). January and February were the most affluent months in both series. The AGE mortality rate decreased by 58% between 2013 and 2015. Rotavirus was responsible for 72.30% of the AGE in Sokodé.

**Conclusion:** The prevalence of rotavirus is high among Togolese children who have suffered from acute gastroenteritis. A drop in cases was reported after the introduction of rotavirus vaccine in Sokodé.

**Keywords:** Gastroenteritis, rotavirus, vaccine, Sokodé, Togo.

#### P44

### Asphyxie néonatale : Césarienne versus Accouchement voie basse

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**Introduction:** Le mode d'accouchement dont la césarienne peut avoir une incidence sur la survenue de l'asphyxie néonatale. L'objectif de cette étude était de décrire l'asphyxie néonatale en fonction du mode d'accouchement.

**Matériel et Méthode:** Une étude rétrospective descriptive et analytique sur une période de 18 mois (1er janvier 2018 à 30 juin 2019) a été menée dans les services de la maternité et de pédiatrie de l'hôpital de Bè à Lomé. Ont été inclus, les dossiers des nouveau-nés ayant fait une asphyxie néonatale (Apgar  $< 7$  à la première et à la cinquième minute associé ou non à une cyanose, une tachypnée et des signes de luttés) et ayant été transférés de la maternité de l'hôpital de Bè à la réanimation pédiatrique de l'hôpital de Bè. L'analyse statistique a été réalisée sur le logiciel R 3.3.4. Le seuil de significativité choisi était 0,05.

**Résultats:** Nous avons enrôlé 238 (4,82%) cas d'asphyxie néonatale sur 4929 accouchements. Le nombre de cas

d'asphyxie néonatale issu d'un accouchement par voie basse était de 126 (4,45%) sur 2831 accouchements par voie basse. Le nombre de cas d'asphyxie issu d'un accouchement par césarienne était de 112 (5,35%) sur 2092 césariennes. Le nombre de cas d'asphyxie issu de césariennes d'urgence était de 89 (37,40%). La souffrance foetale aigüe était la première (21,39%,  $N = 19$ ) indication de césarienne d'urgence. Le nombre de cas issu de césariennes programmées était de 23 (9,66%). L'utérus cicatriciel était la première (47,82%  $N = 11$ ) indication de césarienne programmée. Un score d'Appgar d'' 3 à la 5ème (38,20%) était associé césarienne d'urgence ( $p = 0,0257$ ). Le décès néonatal était associé à la césarienne ( $p = 0,0223$ ).

**Conclusion:** L'asphyxie néonatale était associée à la césarienne avec la survenue de décès néonataux.

**Mots clés:** Asphyxie néonatale, Césarienne, Accouchement voie basse, Togo.

#### P45

### Asphyxie périnatale dans l'unité de néonatalogie du Centre Hospitalier Universitaire de Parakou au Bénin de 2013 à 2018

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**Introduction:** L'asphyxie périnatale constitue la troisième cause de mortalité néonatale dans le monde après le faible poids de naissance et les infections néonatales. L'objectif de cette étude était d'étudier les aspects épidémiologiques, cliniques, thérapeutiques et évolutifs de l'asphyxie périnatale dans l'unité de néonatalogie du CHUD-Borgou/Alibori.

**Patients et Méthodes:** Il s'est agi d'une étude rétrospective descriptive à visée analytique allant du 1er Janvier 2013 au 31 Décembre 2018 et portant sur les dossiers des nouveau-nés hospitalisés dans l'unité de néonatalogie. Le diagnostic d'asphyxie périnatale a été

retenu devant l'anomalie du liquide amniotique, le score d'Apgar inférieur à 7 à la cinquième minute et la présence de signes neurologiques. La classification de Sarnat et Sarnat a été utilisée pour catégoriser la sévérité de l'asphyxie périnatale.

**Résultats:** Sur un total de 5297 nouveau-nés admis pendant la période, 772 cas d'asphyxie périnatale ont été enregistrés représentant 14,57% des admissions. Le liquide amniotique était méconial dans 46,88% des cas et les nouveau-nés étaient réanimés dans 86,56% des cas. Le score d'Apgar était inférieur à 7 à la cinquième minute dans 48,95%. Les nouveau-nés avaient une encéphalopathie hypoxo-ischémique au stade I de SARNAT dans 52,70%, aux stades II et III de SARNAT dans 23,65% des cas chacun. Le taux de mortalité était de 18,23% et les facteurs associés aux décès étaient l'aspect méconial du liquide amniotique, la rupture prématurée des membranes, le score d'APGAR à la 5ème minute inférieur à 7, le stade III de SARNAT.

**Conclusion:** L'asphyxie périnatale est une affection grave pourvoyeuse de décès. Une attention particulière doit lui être accordée. Des mesures innovantes de prévention et de prise en charge s'avèrent indispensables.

**Mots clés:** Asphyxie périnatale, encéphalopathie hypoxo-ischémique, mortalité, Bénin.

#### P46

### IMPLEMENTATION OF THE EMERGENCY, TRIAGE, ASSESSMENT AND TREATMENT STRATEGY, (ETAT) IN 5 DISTRICT HOSPITALS IN NORTH BENIN

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**Background:** The strategy of emergency, triage, assessment and treatment (ETAT), is one of the interventions proposed to reduce hospital mortality in emergency wards. This work focused on the assessment of its implementation in North Benin's first contact hospitals between 2017 and 2018.

**Methods:** This was a cross-sectional descriptive study through documentation review in the pediatric wards of 5 district hospitals in Borgou and Alibori Region in Benin which was conducted from April 2017 to March 2018. It focused on the effectiveness of the implementation of the ETAT strategy in children aged 0-5 years admitted in these hospitals. ETAT classification, adherence to triage on admission, screening and standards, death rate in the first 24 hours of stay, adherence to management of severe malaria, and severe malaria-related lethality as criteria effectiveness were collected.

**Results:** Over the one-year period, 12953 children aged 0 to 5 years were admitted with 92.8% of cases benefiting from triage procedures. The adherence to ETAT standards was 85.6%. Ten percent of admitted children (10.03%) were classified as having "urgent" medical management needs. Early mortality in the first 24 hours was 12.9%. The criteria for correct management of severe malaria in these children were rated as correct in 88.2% of cases and severe malaria related lethality was 3.8%.

**Conclusion:** An effort is being made to implement the ETAT strategy, but it is important that adherence be maintained and strengthened to fully reverse the trend of infant and child mortality in the first 24 hours of hospital admission.

**Mots clés:** ETAT strategy, infants, urgent cases, severe malaria, District hospitals, Benin.

#### P47

### Evolution de la fréquence et de létalité du paludisme grave de 2017 à 2019 dans le service de pédiatrie du CHU de Parakou (Benin)

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#### RÉSUMÉ

**Introduction:** Le dernier rapport de l'OMS montre une dégradation des performances obtenues en matière de lutte contre le paludisme depuis 2017. L'objectif du présent travail était d'étudier l'évolution de la fréquence et de la létalité due au paludisme grave de 2017 à 2019 dans le service de pédiatrie du CHU Borgou à Parakou.

**Patients et Méthodes:** Il s'agissait d'une étude rétrospective descriptive et analytique portant sur tous les enfants âgés de 1 mois et plus hospitalisés dans le service de pédiatrie du CHU de Parakou du 1er janvier 2017 au 31 Août 2019. Les critères de recrutement étaient les suivants : être hospitalisé pendant la période ; avoir un dossier exploitable portant le diagnostic et le type de sortie, les résultats de la goutte épaisse et de test de diagnostic rapide. L'échantillonnage a été exhaustif prenant en compte tous les dossiers d'enfants remplissant les critères d'inclusion. Le traitement des données a été effectué à l'aide du logiciel Epi Info 7.2.2.

**Résultats:** Les fréquences du paludisme grave dans le service étaient de 3,62% ; 3,85% et 4,01% respectivement en 2017 ; 2018 et 2019. Les létalités ont varié de 6,99% à 8,06 de 2017 à 2019. Le risque de décès associé au paludisme grave était 2,22 fois plus élevé en cas d'association avec la dénutrition aigue sévère.

**Conclusion:** En dépit de tous les efforts consentis par les autorités sanitaires et les partenaires techniques et financiers, la fréquence et la létalité du paludisme grave sont en augmentation dans le service de pédiatrie du CHU-B/A. Il est utile d'étudier les déterminants de cette situation.

**Mots clés:** Paludisme grave; enfants; Fréquence; Létalité ; Bénin.

## EVOLUTION OF THE FREQUENCY AND LETHALITY OF SEVERE MALARIA FROM 2017 TO 2019 IN THE PEDIATRIC WARD OF THE TEACHING HOSPITAL OF PARAKOU (BENIN)

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### SUMMARY

**Introduction:** The latest WHO report shows a deterioration in performance of malaria control since 2017. The aim of this study was to study the evolution of the frequency and lethality due to severe malaria from 2017 to 2019 in the pediatric ward of Parakou Teaching hospital (PTH).

**Patients and Methods:** This was a descriptive and analytical retrospective study of all children aged 1 month and over hospitalized in the department from January 1, 2017 to August 31, 2019. The recruitment criteria were as follows : be hospitalized during the study period ; have a medical file containing the diagnosis, the type of output, the results of the thick blood smear and rapid diagnosis test (RDT) of malaria. The sampling was exhaustive, taking into account all the children fulfilling the inclusion criteria. The data was processed using Epi Info 7.2.2 software. **Results:** The frequencies of severe malaria in the ward were 3.62%; 3.85% and 4.01% respectively in 2017; 2018 and 2019. Lethality ranged from 6.99% to 8.06 from 2017 to 2019. The risk of dying from severe malaria was 2.22 times higher when combined with severe acute malnutrition.

**Conclusion:** Despite all the efforts made by health authorities and technical and financial partners, the frequency and lethality of severe malaria are increasing in the pediatric ward of PTH. It is useful to study the determinants of this situation.

**Keywords:** Severe malaria; children; Frequency; Lethality; Benin.

## P48 IMPACT OF LIVING ENVIRONMENT ON SLEEP QUALITY IN SOUTH BENIN

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**Introduction:** Urban lifestyle with artificial lighting, screens and Internet connection is supposed to have a negative impact on sleep quality compared to the pre-modern rural lifestyle. The aim of this study was to compare sleep quality between two rural and urban sub-Saharan populations with and without access to modern lifestyles. **Methods:** BeSAS (Benin Society And Sleep) is an ongoing cross-sectional epidemiological study that began in April 2018 that aims to compare sleep patterns and disorders in a rural (Tanvé, Agbangnizoun commune) and urban (3rd arrondissement, Cotonou commune) population in Benin. The Pittsburgh Sleep Quality Index (PSQI) was used to assess sleep quality. A logistic regression was performed and the significance threshold was set at 0.05. Approval from the National Committee for Ethics in Health Research was obtained and all participants gave informed consent.

**Results:** A total of 1821 participants were included: 1004 (55.23%, mean age 43.5±15.8 years, 66.8% female) in the rural area and 817 (44.77%, mean age 43.83±13.2

years, 59.9% female) in the urban area. After adjusting for age and gender, urban subjects were less likely to have poor overall sleep quality than rural subjects: (OR=0.30 IC95% : 0.22-0.40 ; p<0.001). The component by component analysis of the PSQI showed that urban subjects had better sleep efficiency (OR=0.39, 95% CI: 0.30-0.50, p<0.001) than subjects in rural areas. In contrast, urban subjects used more sleep medications (OR=1.89; 95% CI: 1.19-3.01; p=0.007) and reported more poor sleep quality (OR=1.60; 95% CI: 1.20-2.06; p<0.001) than rural subjects. However, there was no difference between the two populations in terms of sleep latency and sleep duration.

**Conclusion:** These results suggest that, contrary to popular belief, the pre-modern rural lifestyle does not protect against sleep disorders. Further studies using objective sleep assessment (actigraphy) are currently ongoing to better support these results.

**Acknowledgement:** We would like to thank the Ligue Pulmonaire Vaudoise (Lausanne, Switzerland) for the funding received.

## P49 SLEEP QUALITY AND METABOLIC SYNDROME IN GENERAL POPULATION IN BENIN: PRELIMINARY RESULTS OF THE BENIN SOCIETY AND SLEEP (BESAS) STUDY

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**Introduction:** Metabolic syndrome is a true global scourge, which refers to the presence in the same individual of lipid, carbohydrate or vascular disorders associated with weight excess. There is growing evidence to demonstrate an association between sleep disorders and metabolic syndrome. The aim of this study was to determine the relationship between sleep quality and metabolic syndrome in an African population.

**Materials and Methods:** BeSAS (Benin Society And Sleep) is an ongoing cross-sectional epidemiological study that began in April 2018 and which aims to compare sleep patterns and disorders in a rural (Tanvè, Agbangnizoun town) and urban (3rd arrondissement, Cotonou City) population in Benin. The Pittsburgh Sleep Quality Index (PSQI) was used to assess sleep quality. The metabolic syndrome was defined by the association of high blood pressure, hyperglycaemia and obesity. A logistic regression was used and the significance threshold was 0.05. Approval from the National Committee of Ethics in Health Research Ethics was obtained and all participants gave informed consent.

**Results:** A total of 1821 participants were included: 1004 (55.23%, mean age 43.5±15.8 years, 66.8% female) in rural areas and 817 (44.77%, mean age 43.83±13.2 years, 59.9% female) in urban areas. The prevalence of metabolic syndrome was 4.2% (95% CI : 3.0%–5.7%). After adjusting for age, sex, living area, subjects with poor sleep quality were more likely to develop a metabolic syndrome (OR=2.20 CI95% : 1.25–3.89 ; p<0.001).

**Conclusion:** These results support the hypothesis that sleep quality plays a key role in the development of metabolic syndrome, including in an African population.

**Acknowledgement:** We would like to thank the Ligue Pulmonaire Vaudoise (Lausanne, Switzerland) for the financial support received.

**Keywords:** Metabolic syndrome, sleep, quality, Africa

**P50**

**IMPACT OF THE INCARCERATION ON THE MENTAL HEALTH OF THE PRISONERS IN THE CIVIL PRISONS IN THE NORTH OF BENIN**

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**Introduction:** The prison population suffers from many problems of mental health. In order to benefit from the treatments of quality and propose actions of promotion of mental health and prevention of mental disorders from the prisoners, it turns out indispensable to study the consequences of this environment on their mental health condition. The inexistence of data concerning the impact of incarceration on the psychic equilibrium of the prisoners in the prisons in the north Benin proves the interest for this topic of which aim was to identify the different mental disorders caused by the incarceration.

**Methods:** It was about an analytical and descriptive transversal study that took place in the civil prisons of Parakou, Kandi and Natitingou. The data have been collected from February to June 2016.

**Results:** About 315 patients of the population of the study, the most represented bracket age was that of 24 to 34 years old (43.5%). The sex ratio was 25.25 in favour of male sex. More than half of the population of the study did not go to school (52.1%). The average number of the prisoners per cage was 51.9±38.6 with the extremes 13 and 166. Main incarceration motives : association of criminals, assassination and murder (47.3%), abuse of confidence and theft (32.1%), voluntary assaults and batteries (13.3%), business of human organs (7.3%). Main impacts on the mental health condition: major depressive episode (44.1%), generalized anxiety (18.8%), suicide attempt (13.0%), psychotic disorders (9.5%), none impact (14.6%).

**Conclusion:** The psychiatric disorders are very frequent in penitentiary

environment but often neglected by the political and administrative authorities. It turns out necessary to take into account the needs in mental health of the prisoners in the different sanitary policies.

**Keywords:** Mental health, prison population, psychiatric disorders.

**P51**

**ENDOMETRIAL CANCER IN ZARIA, NIGERIA: A TWENTY-YEAR HISTOPATHOLOGICAL ANALYSIS: (1991–2010)**

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**ABSTRACT**

**Background:** Cancer has become a major global public health problem. There were 12.7 million new cases of cancer and 7.6 millions cancer related deaths worldwide, approximately 150,000 cases of endometrial cancer are diagnosed each year, making endometrial carcinoma the fifth most common cancer in women. The predisposing factor was linked to reproductive history with duration and type of oestrogen exposure. Endometrial cancer is often diagnosed early because abnormal uterine bleeding is a common symptom. There has not been a comprehensive clinico-pathological study/documentation of endometrial cancer in the centre, which is located in Northwestern zone of Nigeria.

**Materials and Methods:** This is a retrospective histopathological review of endometrial cancer seen over 20-year period (1991–2010), based on all samples, obtained from endometrial curettage and hysterectomy specimens submitted to the Pathology Department of the Ahmadu Bello University Teaching Hospital, Shika-Zaria. Histology slides stained

with routine Haematoxylin and Eosin were retrieved, reviewed and classified using the WHO classification of tumours of the endometrium 2005. Analysis of the collected data was carried out using Statistical Program for Social Sciences (SPSS) Version 15.0, and data were presented in frequency distribution tables and figures

**Results:** A total of 1,505 cases were diagnosed as malignant lesions of the female genital tract with the Endometrial cancer represent 4.4% of all the female genital tract malignancies within the study period. The vast majority of endometrial cancer were epithelial 46 (69.7 %); 21.7 % were grade I tumours, grade II tumours accounted for 50.0 % and grade III 28.3 % of the cases. The remainder were Stromal sarcoma 13 (19.7%) of these 61.5 % were high grade stromal sarcoma, 38.5 %, low grade endometrial stromal sarcoma and Malignant Mixed Mesodermal Tumours accounted for (10.6 %) cases. The age range was from 24 to 80 years. The peak age of incidence for endometrial cancer was in 5th and 6th decades of life. Most of the endometrial cancers were diagnosed by endometrial biopsies 42 (63.6%) while the rest by total abdominal hysterectomy 24(36.4 %).

**Conclusion:** Endometrial cancer represented 4.4 % of the female genital tract malignancies within the study period with possible early exposure to the aetiological factors and epithelial tumour are commoner than Malignant Mixed Mesodermal Tumours.

**Keywords:** Endometrial, Cancer, Epithelial, Stromal, Northwestern, Nigeria

## P52

### PREVALENCE OF HIGH-RISK HUMAN PAPILLOMAVIRUS INFECTION AMONG SEXUALLY ACTIVE WOMEN IN PARAKOU (BENIN)

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## ABSTRACT

**Background:** The genital infection due to Human papillomavirus (HPV) is considered as the most common sexually transmitted infection across the world, including high-risk oncogenic HPV (HR-HPV).

**Objective:** This study aimed to determine the prevalence of HR-HPV infection among sexually active women in Parakou (Benin) in 2017.

**Methods:** This research work was a cross-sectional, descriptive and analytical study carried out in the city of Parakou (Benin), from January 15 to April 15, 2017. Sample consisted of 247 sexually active women selected through a systematic random sampling. Cervical specimens collected with swab were subject to multiplex PCR to characterize 14 HR-HPV genotypes.

**Results:** The prevalence of HR-HPV infection was rated 32.80% [95% CI: 27.10-39.30]. All the fourteen HR-HPV genotypes investigated were detected using PCR among our study population. The most common types of HR-HPV were, in descending order, HPV45 (25.90%), HPV35 (18.50%), HPV52 (17.30%), HPV51 (16.00%) and HPV58 (14.80%). HPV16 and 18 were found out at respective proportions of 2.50% and 7.40%. Common associations were HPV35 + 45 (4.90%) and HPV45 + 52 (3.70%).

**Conclusion:** The prevalence of HR-HPV infection is high among sexually active women in Parakou in 2017. Twelve genotypes of HPV-HR apart from HPV16 and 18 circulate in Parakou.

**Keywords:** High-risk HPV, prevalence, real time PCR, women, Benin.

## P53

### Evolution de la fréquence et de létalité du paludisme grave de 2017 à 2019 dans le service de pédiatrie du CHU de Parakou (Benin)

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## RÉSUMÉ

**Introduction:** Le dernier rapport de l’OMS montre une dégradation des performances obtenues en matière de lutte contre le paludisme depuis 2017. L’objectif du présent travail était d’étudier l’évolution de la fréquence et de la létalité due au paludisme grave de 2017 à 2019 dans le service de pédiatrie du CHU Borgou à Parakou.

**Patients et Méthodes:** Il s’agissait d’une étude rétrospective descriptive et analytique portant sur tous les enfants âgés de 1 mois et plus hospitalisés dans le service de pédiatrie du CHU de Parakou du 1er janvier 2017 au 31 Août 2019. Les critères de recrutement étaient les suivants : être hospitalisé pendant la période ; avoir un dossier exploitable portant le diagnostic et le type de sortie, les résultats de la goutte épaisse et de test de diagnostic rapide. L’échantillonnage a été exhaustif prenant en compte tous les dossiers d’enfants remplissant les critères d’inclusion. Le traitement des données a été effectué à l’aide du logiciel Epi Info 7.2.2.

**Résultats:** Les fréquences du paludisme grave dans le service étaient de 3,62% ; 3,85% et 4,01% respectivement en 2017 ; 2018 et 2019. Les létalités ont varié de 6,99% à 8,06 de 2017 à 2019. Le risque de décès associé au paludisme grave était 2,22 fois plus élevé en cas d’association avec la dénutrition aigue sévère.

**Conclusion:** En dépit de tous les efforts consentis par les autorités sanitaires et les partenaires techniques et financiers, la fréquence et la létalité du paludisme grave sont en augmentation dans le service de pédiatrie du CHU-B/A. Il est utile d’étudier les déterminants de cette situation.

**Mots clés:** Paludisme grave; enfants; Fréquence; Létalité; Bénin.

(P = POSTER)





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