

# Infections and non-communicable diseases that just refuse to go away

Of late there has been spate of new and emerging infections confounded by the non-communicable disease epidemic in Africa.

Here we discuss the latest information on the above subject.

## *What is new in HIV/AIDs and hepatitis?*

Here we discuss the latest information on the above subject. Tanzanian workers report a knowledge gap among attendees on of antenatal care clinics. (PMTCT), especially at primary health care facilities.<sup>1</sup> This is disappointing because a lot of effort and resources have been invested in PMTCT. But they are not alone. South African authors have found that while traditional healers play a key role in the diagnosis and management of sexually transmitted infections including HI/AIDS, they have serious shortcomings especially poor diagnosis.<sup>2</sup>

Testing for HIV remains a very important strategy for HIV prevention in South Africa especially for young people. Over 50% of the youth reported that they had had an HIV test with females more likely to test than males.<sup>3</sup> This is timely because work in Lesotho has shown that health workers attribute HIV/AIDS to changing lifestyles and demographic profiles.<sup>4</sup> In fact family dynamics in adherence to HAART has been studied by Nigerian workers.<sup>5</sup> Most of the respondents were adherent and attributed this to care and support they received from their families. In a related article, Ugandan authors report on knowledge, attitude and barriers to condom use among female sex workers and truck drivers among whom the risk of HIV remains high.<sup>6</sup> They conclude that condom use is still hampered by socioeconomic and relationship factors.

Co-infection of HIV and hepatitis B among children on HAART has hardly been reported from Africa. Work from Nigeria shows a prevalence of 6%. Co-infected children were more likely to have low CD4 counts.<sup>7</sup> Outcome of patients on HAART remains poor with a very high mortality of 21% reported from Uganda is a cause for concern.<sup>8</sup> The main causes were opportunistic infections, malignancy and AZT associated anemia. Dyslipidaemia and dysglycaemia are serious problem among patients on HAART. Ghanaian authors have found that HAART was associated with lipodystrophy and the risk of type 2 diabetes mellitus.<sup>9</sup> Hepatitis remains a big challenge in Africa. The prevalence of hepatitis B antigenemia (HBsAg)

among pregnant women was 6.6% consistent with reports from elsewhere in Africa<sup>10</sup>.

## *Eating dog's meat and rabies in Nigeria*

Finally the story of the month: Stray dog meat and the risk of rabies in Nigeria.<sup>11</sup> While rabies is a preventable zoonosis with very high mortality, dog meat remains a delicacy among some communities in southern Nigeria. The authors report 10 cases of rabies following consumption of dog meat. All the 10 patients died. The authors call for culling of stray dogs, control of trade in dog meat, and provision of post exposure prophylaxis (PEP).

## *Nodding syndrome (NS) still an enigma*

This syndrome just refuses to go away from our radar screens<sup>12,13</sup>. Although it is epidemiologically linked to *Onchocerca volvulus* and the Simulium fly<sup>14</sup>, this relationship has not been clearly elucidated raising new lines of enquiry. For example Colebunders<sup>15</sup> believes that the problem might be that of a virus transmitted by the Simulium fly. Mutamba and colleagues have written for us an article on stereotypes of NS, looking specifically at the health workers response in northern Uganda. The health workers have very negative stereotypes which might negatively impact their work.<sup>16</sup>

## *Exercise, cytokines, diabetes and other non communicable diseases*

Communicable diseases seem to have firmly established themselves on the African continent.<sup>17,18</sup>. Hitherto there has been limited information on effects of exercise on biomarkers of inflammation especially in type 2 diabetes mellitus. Saudi authors found that moderate aerobic exercise modulates inflammatory cytokines better than mild aerobic exercise in type 2 diabetes.<sup>19</sup> Continuing the diabetes story, Chinese authors sought to determine the association between vitamin D intake and type 2 diabetes risk. In a meta analysis of cohort studies, they found that there was no association.<sup>20</sup> In a related study Nigerian workers concluded that mid upper arm circumference of 33 cm, and calf circumference of 39 might be

reliable cut off points for the diagnosis of obesity during pregnancy.<sup>21</sup> Although exercises are recommended for the prevention of non communicable diseases, Rwandan and South African authors report factors associated with injuries among female soccer players.

Up to half reported injury affecting mainly the ankle. Factors associated with injury included age, excessive ankle range and premenstrual symptoms, and use of contraceptives.<sup>22</sup> Injuries too are serious in South Africa.<sup>23</sup> A review of injuries at two hospitals in Eastern Cape showed that interpersonal violence (60%) and traffic accidents (19%) were the leading causes of injury.

One would have thought that hearing loss might not be such an important topic. Wrong! Two papers highlight the problem. One: Nigerian workers highlight the issue of hearing loss with increasing age (presbycusis).<sup>24</sup> They report that the commonest symptoms were hearing loss, tinnitus, and vertigo. Hearing impairment affected both speech and higher frequencies. Zimbabwean authors on the other hand found that the prevalence of noise induced hearing loss was 37% - highlighting the need for prevention and screening programmes.<sup>25</sup>

Another non communicable disease is liver cirrhosis, even though it might arise from infections such as hepatitis B and C. Uganda workers<sup>26</sup> report that liver cirrhosis contributes to almost 20% of patients on the gastroenterology ward. Over 50% had a history of alcohol consumption. While 27% had hepatitis B, only 3.5% had hepatitis C. Most patients presented with ascites and variceal bleeds. They call for preventive measures such as educating the population on the dangers of alcohol consumption. Continuing with liver cirrhosis, Chinese authors report on platelets in liver cirrhosis and contend that CD62P might be a useful in the timely monitoring and treatment of liver cirrhosis.<sup>27</sup> Finally no treatise on non communicable disease is complete without reference to cancer. In Ghana cervical cancer patients did not have any more knowledge than their counterparts without cancer! The authors identified psychological barriers to screening for cancer as well.<sup>9</sup>

*Pregnancy, malaria and controversies in the origin of NCDs*

The use of iron-folic acid is an important determinant of pregnancy outcome especially in low income countries. Indian authors<sup>28</sup> report a 65% adherence to routine iron-folic acid tablets with socioeconomic factors playing a role. On the other

hand work from Nigeria reports on the effect of maternal hemoglobin on maternal measles antibodies.<sup>29</sup> Ugandan authors report on the utilization of insecticide treated nets in pregnancy in a post conflict district<sup>30</sup> while Ibadan scientists muse over the synergistic effects *Telfaria occidentalis* with artesunate on *Plasmodium berghei* malaria in mice. Thank you, Ghana: for highlighting the issue of urban malaria. The prevalence seems to differ by location and socioeconomic status of city dwellers<sup>31</sup>. As you muse over how to spend your oil money this might help, perhaps?

In an erratum due to confusion over order of authorship, and title we are re running the work by Yali Zhang.<sup>27</sup>

They report differential expressed genes in ECV304 endothelial like cells infected with cytomegalovirus. They conclude that the gene products might play a role in virus-induced pathogenesis. (REF2). Talking of pathogenesis of viral diseases we bring you a very interesting paper by Okonko and others on enteroviruses as a possible cause of hypertension, dilated cardiomyopathy and heart failure.<sup>32</sup>

Talking of infections, carbapenems are now in vogue in most hospitals in Africa yet there are disturbing reports of increasing resistance and cost. The paper reports *Escherichia coli* isolates with high molecular weight plasmids harboring extended spectrum beta-lactamase (ESBL) and carbapenemase resistant genes, and co-acquired macrolide and other un-identified resistant genes.<sup>33</sup> In a related paper Sanya and others report on the misuse of antibiotics by non medical undergraduate students. They emphasize the need for enlightening the students on rational use and disposal of drugs especially antibiotics.<sup>34</sup>

Other manuscripts reviewed for this paper include care of the terminally ill in the Middle East<sup>35</sup>, management of perforated peptic ulcers<sup>36</sup> dyspepsia,<sup>37</sup> hypoglycemia,<sup>38</sup> nano-technology<sup>39</sup>, sore throat following surgery<sup>40</sup> and research and ethics committee function<sup>41</sup>. We also include infection control<sup>42</sup>, infertility<sup>43</sup>, drinking water<sup>44</sup>, and waiting times in department of obstetrics.<sup>45</sup>

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