Updates for your practice… March 2014, Volume 3, Issue 27

TLALELETSO

UPDATES FOR YOUR PRACTICE

Crypto Meningitis Updates

BOTLHOKWA!

Key predictors of bad outcomes: confusion, high opening pressures, low CSF white count and high fungal burden…

HIV associated cryptoccocal meningitis is the commonest cause of adult meningitis in much of Africa. Despite antifungal treatment, acute mortality is the developing world remains between 24 and 43%, and crypto meningitis accounts for 10-20% of all HIV-related deaths in sub-Saharan Africa. The median time to death following hospital admission is 10-13 days.

Using data from a cohort of 501 patients with crypto meningitis from Thailand, South Africa, Malawi and Uganda, the authors of this recent paper reported on the clinical features and outcomes of patients with crypto and HIV. Notably they found that mortality was 17% at 2 weeks, 34% at 10 weeks. Four patient characteristics were independently predictive of mortality at 2 weeks. Those individuals with confusion, high baseline CSF fungal burden, older age and high serum white cell count, were more likely to die at 2 weeks.

Altered mental status, lower body weight, anemia, and low CSF opening pressures were independently associated with higher 10 week mortality

Take Home Message: This data clearly demonstrates how badly patients with crypto meningitis do - mortality at 10 weeks was incredibly high. Prompt diagnosis, effective treatment and early initiation of ART are essential for these patients.

Reference: Clin Infect Dis. (2014) 58 (5): 736-74

Tlaleletso is a monthly publication produced by the Botswana UPenn Partnership, in response to your expressed need for accessible, digestible clinical information. In this issue we focus on new and important research that has been recently published and is relevant to clinical practice in Botswana.

Editor Mike Reid

IPT doesn't reduce risk of TB in RSA

Large study from the mines in South Africa demonstrates the limited role of IPT in adults with HIV

Page 2

Co-trim saves children's lives

Long-term therapy with co-trim is beneficial for children living with HIV, even when CD4 counts are high on HAART

Page 2

1 week=2 week for H. Pylori eradication

7 days with triple therapy produces rates of eradication that are nearly as good as 10 days or 14 days of treatment

Page 3

IPT: large study from RSA demonstrates limited impact

Isoniazid Preventive Therapy (IPT) has previously been demonstrated to reduce the risk of TB for people living with HIV in Africa. However, this study demonstrated that IPT had limited utility in reducing overall incidence or prevalence of TB among workers in South African gold mines.

This was a cluster-randomized controlled trial of several large mines in RSA. Each cluster was then randomized to either intervention or no intervention. The intervention consisted of TB screening and referral for treatment if active TB was diagnosed. Nine months of isoniazid preventive therapy was offered to those who were not diagnosed with active TB.

During the initial 9-month follow-up period, the incidence of TB was significantly lower among the intervention clusters than the control clusters; however, the incidence was similar in the two groups following this period.

The study's authors conclude that mass screening and treatment for latent TB had no effect on TB control in South African gold mines, despite the successful use of IPT in preventing TB in patients while taking isoniazid

Reference: N Engl J Med 2014; 370:301-310

Do opiates for acute abdominal pain affect treatment management?

Opiate analgesia for adults and children presenting with acute abdominal pain may alter the physical examination, but does not increase the risk of management errors. This meta-analysis 12 studies sought to determine definitively if pain control impacted on treatment outcomes. The data provided incontrovertible evidence that pain control does no harm

Since most patients prefer pain control, it makes sense to abandon the outdated and incorrect practice of withholding opiate analgesia from patients with acute abdominal pain.

Reference: JAMA 2006; 296:1764-1774

CO-TRIM – Long-term therapy saves lives in children with HIV

Long term prophylactic cotrim maybe beneficial for children with HIV: In our (Botswana setting), cotrim prevents opportunistic infections, such as Pneumocystis jirovecii, as well as malarial and non-opportunistic bacterial infections. Consequently, co-trim is often given to HIV-positive children before and during ART. However, it has been unclear when or if co-trim should be stopped.

This study found significant benefits to continuing co-trimoxazole, even after 2 years of ART and even if the immune system appears healthy. The high rate of serious bacterial and protozoal infections in sub-Saharan Africa makes co-trimoxazole prophylaxis useful and relevant.
This has important consequences for management of HIV infected children

Editor's comment: This data provides strong evidence for continuing cotrim long term in children with HIV. Cotrim is safe, inexpensive and should be continued beyond the point at which the current guidelines recommend stopping it!

Reference: N Engl J Med 2014; 370:301-310

1 WEEK=2 WEEKS FOR HP ERADICATION THERAPY

Helicobacter Pylori infection is very common in Botswana. Estimates suggest that up to 60% of adults may be infected with the bacteria, which causes a spectrum of complaints from mild dyspepsia through to severe peptic ulcer disease and stomach cancer.

In this important study from 2007, researchers tried to determine what was the optimal time for treating H. Pylori infection. A variety of regimens of varying durations are usef, from as short as one day to as long as 14 days. 909 adults with a symptomatic duodenal ulver and positive HP confirmation were randomized to receive 1 week of omeprazole, amoxicillin and clarithromycin (OAC) or 2 weeks of OAC, or omeprazole and amoxicillin alone.

The researchers found that HP eradication rates were similar for the 1 and 2 week groups; both OAC groups had higher eradication rates than omeprazole and amoxicillin alone. This study provides clear evidence that OAC given twice daily for one week is as effective as HP eradication for two weeks.

Unfortunately, clarithromycin is not available in Botswana and most patients treated for HP are on a Omeprazole, Amoxicillin, Metronidazole regimen. While this is probably inferior regimen, it is reasonable to assume that 2 weeks is as effective as longer treatment and maybe shorter courses would be just as effective. Remember that HP serology remains positive even years after previous HP infection and therefore HP IgG levels cannot be used as a test of cure!

Reference: GUT 2007; 56:475-479

HIVASSOCIATED WITH INCREASED RISK OF MDR

HIV infection is associated with an increased risk of multi-drug-resistant tuberculosis (MDR-TB), results of a systematic review and meta-analysis published in *PLOS ONE* show. HIV increased the risk of MDR-TB by 24%. The analysis included 24 separate studies with a total patient population of 93,000. Seven studies reported on the interaction between HIV infection and the risk of primary MDR-TB. Their pooled results showed that HIV was associated with a more than two-fold increase in risk (OR = 2.28; 95% CI, 1.52-3.04). There was a non-significant association between HIV and the risk of secondary MDR-TB (OR = 1.02; 95% CI, 0.80-1.24). The investigators believe their findings have important implications for TB control programs in terms of detection, appropriate treatment, infection control and follow-up.

Reference: PLOS ONE 9(1): e82235, 2014

OUTREACH AS WE KNOW IS ENDING SOON!

April 2014 will be the last month of UPenn's out-reach as you know it. Dr Mike Reid is leaving Botswana in May to return to the US and unfortunately Botswana UPenn will be relinquishing responsibility for the outreach program.

If you feel that you have benefited from the outreach program and/or if you feel strongly that it should continue, please let us know.

As for Tlaleletso, well this too will end in April, unless there is strong enthusiasm for its continuation. Email me at Michael.j.a.reid@gmail.com if you feel that this publication should continue!

Botlhokwa!

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Hypertension guidelines - 2014

New guidelines from Joint National Committee (in the US) emphasize thresholds for treatment….Changing practice in Botswana?

Hypertension affects thousands of adults in Botswana and is a major risk factor for the development of various cardiac, neurological and renal conditions. This report developed by eighth Joint National Committee in the USA, provides clinicians with evidence-based guidelines for blood pressure management. While the guidelines continue to define high blood pressure as 140/90 mmHg, it aims to redefine the goals and thresholds for drug treatment and the selection of antihypertensive drugs.

A strong recommendation of these new guidelines is made to initiate pharmacologic treatment to lower pressure to less than 150/90 mmHg in hypertensive patients aged 60 or older and to a diastolic goal of less than 90 mmHg in hypertensive patients aged 30 to 59.

While previous guidelines recommended thiazide-type diuretics (like hydrochlorothiazide) for initial therapy in the general population, these new guidelines make a recommendation for selection of initial treatment from a broader range of medications. In black hypertensive patients, including those with diabetes, a calcium channel blocker (e.g. nifedipine) or a thiazide diuretic (e.g. HCTZ) is recommended as initial therapy. The new guidelines also make a recommendation to use angiotensin converting enzyme inhibitors for blood pressure control in all patients with chronic kidney disease, regardless of race or diabetes status.

These new guidelines have not been adopted Botswana, but clinicians are recommended to read and apply them to their clinical practice as appropriate.

Ref: *JAMA.* 2014;311(5):507-520.

OUTREACH IN THE COMING MONTHS

Tsabong (1st Tues of Month) Mar 4th Apr 8th	**Hukunsti** (2nd Tues of Month) Mar 11th Apr 15th	**Ghanzi** (3rd Tues of the month) Mar 18th Apr 22th	***BLH** (1/2 Thurs of the month) Mar 6th Apr 3rd	***Mochudi** (2/3 Weds of the month) Mar 26th Apr 23rd
***Thamaga** (3/4)Thurs of the month) Mar 27th Apr 24th	**Kanye 1** (1st Fri of the month) Mar 7th Apr 4th	***Kanye 2** (3/4 Fri of the month) Mar 28th Apr 25th	***Good Hope** (1st Wed of the month) Mar 5th Apr 2nd	***Mahalapye** Mar 19th Apr TBC

Got a clinical question about a complicated medical patient or a patient with HIV?

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