





## TRAVEL BULLETIN

The official COLORADO Tropical Medicine Newsletter

Prepared by: **Andres Henao, MD** 

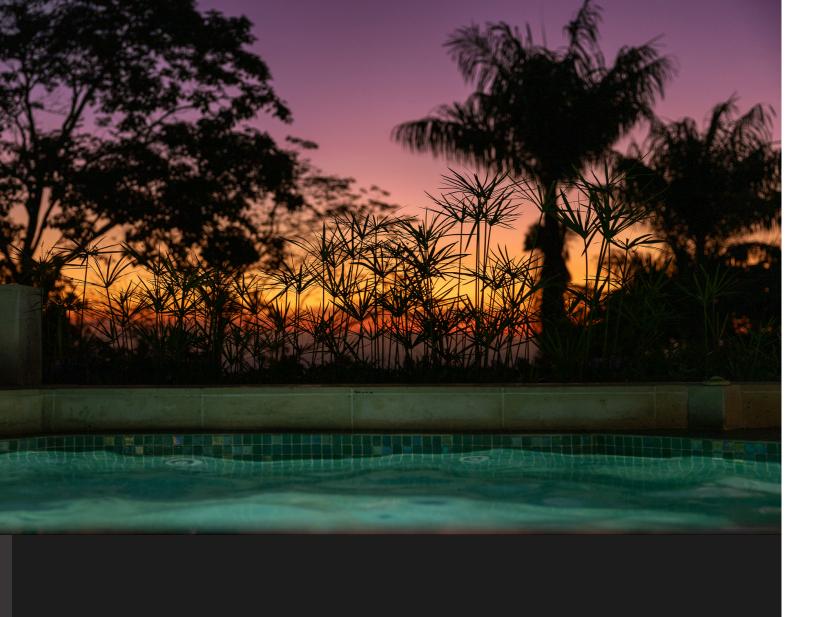
## **FIRSTLY** THANK YOU FOR YOUR DEDICATION

**AND PATIENT CARE!** 



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WE BUILD

## EXPERIENCE

### 1 | WHO OUTBREAKS

2023...

Latest WHO Disease Outbreak News (DONs), providing information on confirmed acute public health events or potential events of concern.





**Anthrax Zambia** 



Influenza A(H1N2) UK

The first human cases were reported from the Dengeza Health Post in the Sinazongwe District of the Southern Province on 5 May 2023. This is the first swine influenza A(H1N2)v case reported in the United Kingdom.



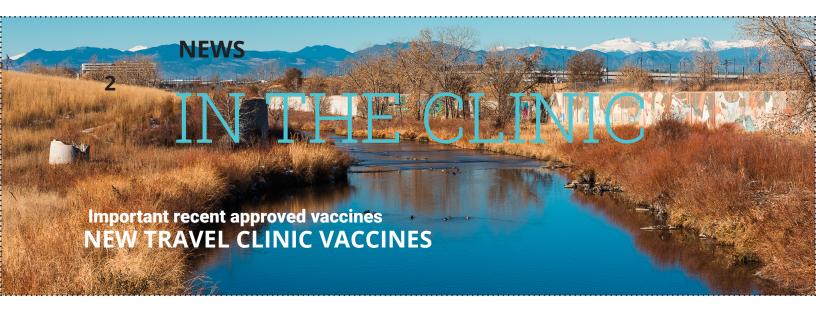
Mpox DRC

From 1 January through 12 November 2023, a total of 12 569 suspected mpox cases, including 581 suspected mpox deaths (case fatality ratio: 4.6%), have been reported in 156 health zones from 22 out of 26 (85%) provinces in the Democratic Republic of the Congo.



<u>Diphteria</u> Guinea

Ministry of Health notified WHO of a diphtheria outbreak in Guinea. From 4 July to 13 October 2023, a total of 538 cases of diphtheria, were reported in the Kankan region, in the east-central part of Guinea. Of the total cases reported, 520 are suspected and 18 confirmed with 58 deaths including 13 among confirmed cases (case fatality rate (CFR) among all cases, 11%).





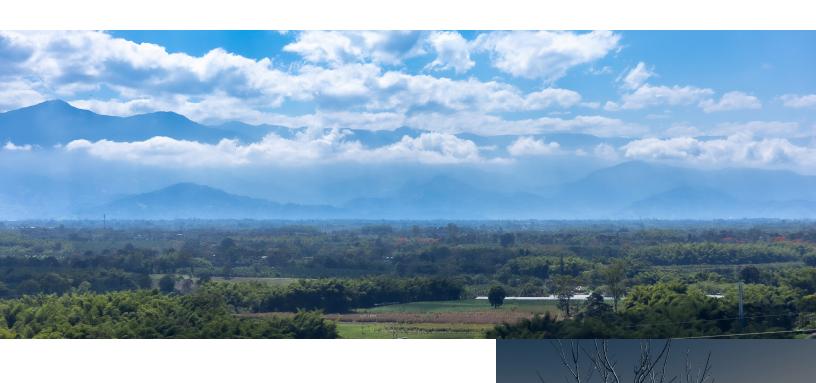
- TICK-BORNE ENCEPHALITIS (TBE) IN **INDIVIDUALS 1 YEAR OF AGE AND** OLDER.
- U.S. TRAVELERS VISITING PARTS OF **EUROPE AND ASIA WHERE TBE IS** FOUND WHO MIGHT PARTICIPATE IN **OUTDOOR ACTIVITIES WITH RISK OF** TICK EXPOSURE.
- **VISIT AREAS WITH TBE WHEN TICKS** ARE MOST ACTIVE (APRIL THROUGH **NOVEMBER).**
- TAKE PART IN OUTDOOR ACTIVITIES IN OR NEAR FORESTED AREAS SUCH AS HIKING, CAMPING, HUNTING, FISHING, OR BIRDWATCHING.
- **ADULTS (>15 YEARS) NEED 3-DOSE SERIES WITH THE 2ND DOSE GIVEN 14** DAYS TO 3 MONTHS AFTER THE FIRST DOSE, AND THE 3RD DOSE GIVEN 5 TO 12 MONTHS AFTER THE SECOND DOSE.
- **BOOSTER CAN BE GIVEN AS A** SINGLE DOSE ≥3 YEARS FOLLOWING **COMPLETION OF THE PRIMARY SERIES**



#### **CHIKUNGUNYA**

- A SINGLE DOSE
- LIVE ATTENUTED
- **LICENSE ADULTS > 18 YEARS OF** AGE
- NO ACIP RECOMMENDATIONS
- **RISK AMONG TRAVELERS IS VARIABLE: 100-200 REPORTED CASES ANNUALLY**
- **SURROGATE ENDPOINTS: SERORESPONSE RATE AT 28** DAYS ≥98%

## RESEARCH ACTIVITIES 2023



#### **WE ARE FULLY CHARGE**



We have had a very productive year. We have continued our clinical research team efforts and collaborations

#### **OUR TEAM**

#### In facts and numbers



DM2 IS ASSOCIATED WITH INCREASED COGNITIVE DYSFUNCTION RISK IN NHNT PATIENTS WITH CRYPTOCOCCOSIS. IT IS RARE FOR DM2 TO BE THE ONLY IDENTIFIED RISK FACTOR FOR DEVELOPING CRYPTOCOCCOSIS. KIDNEY DISEASE, HYPERGLYCEMIA, AND IMMUNE DYSFUNCTION CAN INCREASE THE RISK OF CRYPTOCOCCOSIS IN PATIENTS WITH DM2.



ANNUAL RISKS FOR ARRHYTHMIAS AND STROKE FOR CHRONIC CHAGAS CARDIOMYOPATHY

(CCC) WERE 1.6% AND 0.8%, RESPECTIVELY. THE YEARLY MORTALITY AND HOSPITALIZATION RATES FOR CCC WERE 2.7% AND 17.1%, RESPECTIVELY. ONLY 13 PATIENTS HAD A DOCUMENTED ANTITRYPANOSOMAL THERAPY COURSE WITHIN 6 MONTHS AFTER DIAGNOSIS. OF THOSE RECEIVING TREATMENT, 10 PATIENTS RECEIVED BENZNIDAZOLE AND THREE NIFURTIMOX. CHAGAS DISEASE SCREENING IN PATIENTS FROM ENDEMIC AREAS LIVING IN THE UNITED STATES REMAINS CRUCIAL.



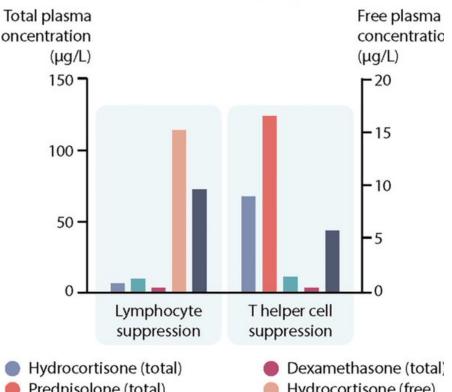
ANAKINRA USE AS A COVID-19 THERAPY SEEMS
TO RELY ON A VIEW OF PATHOGENESIS THAT
INCORRECTLY REFLECTS HUMAN DISEASE.
SINCE COVID-19 IS AN EXAMPLE OF SEPSIS,
COVID-19 BENEFIT DUE TO ANTI-INFLAMMATORY
THERAPY CONTRADICTS AN EXTENSIVE
HISTORY OF UNSUCCESSFUL CLINICAL STUDY.
REPURPOSING RHIL-1RA TO TREAT COVID-19
APPEARS TO EXEMPLIFY A CYCLE FOLLOWED
BY INFLAMMATION-SUPPRESSING SEPSIS
TREATMENTS. A LANDSCAPE OF TREATMENT
FAILURES IS INTERRUPTED BY A SUCCESSFUL
CLINICAL TRIAL. HOWEVER, SUBSEQUENT
CONFIRMATORY STUDY FAILS TO REPLICATE THE
POSITIVE DATA.

#### **OUR TEAM**

#### In facts and numbers

THE CHALLENGE OF DETERMINING THE GLUCOCORTICOID DOSE AND DURATION THAT PREDISPOSE PATIENTS TO THE RISK OF DEVELOPING AN OI REMAINS ELUSIVE AS STUDIES ARE CONFOUNDED BY DISEASE SEVERITY, LIMITED DETAILS ABOUT GLUCOCORTICOID TREATMENTS. INCONSISTENT PERIODS FOR DETERMINING GLUCOCORTICOID EXPOSURE. AND THE DEFINITION AND DISTRIBUTION OF OIS. COLLABORATION AND SHARED DECISION MAKING ACROSS SPECIALTIES INVOLVING PATIENTS SHOULD BE UTILIZED TO DISCUSS INTERVENTIONS TO PREVENT ACUTE INFECTION OR REACTIVATION OF OIS. ALTERNATIVELY, LIMITING THE GLUCOCORTICOID DOSE, DURATION, AND INTENSITY MAY HELP REDUCE THE RISK OF OIS. THE DIFFERENTIAL EFFECTS OF VARIOUS GLUCOCORTICOIDS ON LYMPHOCYTE SUBPOPULATIONS MUST BE ACCOUNTED FOR IN FUTURE STUDIES TO BETTER QUANTIFY THE RISK OF OIS ATTRIBUTABLE TO GLUCOCORTICOIDS VERSUS UNDERLYING COMORBIDITIES OR OTHER IMMUNOSUPPRESSIVE MEDICATIONS.

#### Immunosuppressive potency of glucocorticoids





DANIEL B. CHASTAIN, PHARM.D, BCIDP, AAHIVP **CLINICAL ASSOCIATE PROFESSOR** UNIVERSITY OF GEORGIA, **COLLEGE OF PHARMACY** 

Prednisolone (total)

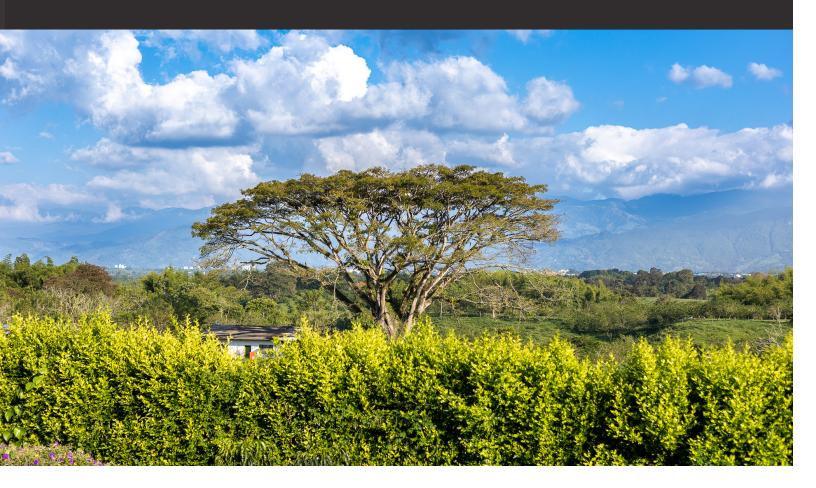
Methylprednisolone (total)

Hydrocortisone (free)

Prednisolone (free)

Pooled mean EC<sub>50</sub> values of glucocorticoids for cellular effects. Equivalent doses were based on glucocorticoid potency.

# GLOBAL HEALTH



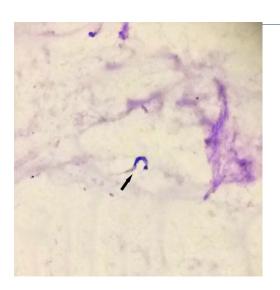
All photographs were taken with Canon EOS RP

#### **MPOX** in Africa



- The WHO has just published a release on the Mpox (monkey pox) outbreak in Democratic Republic of the Congo (DRC)
- The case fatality rate is nearly 5%, and already 600 people have died.
- While there are effective vaccines, they are not available to those in DRC.

xisting vaccines offer 66-90% protection and are recommended for those at risk. Despite global attention as a public health emergency of international concern, only a few countries maintain vaccine stocks. That's just plain, not fair.



#### LOCAL IS GLOBAL

#### Colorado

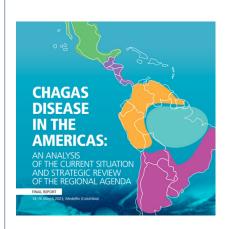
State health officials have confirmed that a person who tested positive for measles passed through the Denver International Airport. Cases of chickenpox are being reported among children in the migrant community living in Denver



Five cases of locally acquired dengue were reported this week. In 2023, positive samples from 172 humans and one mosquito pool have been reported from five counties.

#### USA

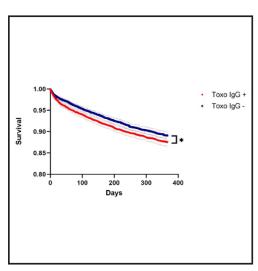
- Positive <u>Toxoplasma</u> IgG Serology Is Associated with Increased Overall Mortality – A PSM Analysis.
- Multifactorial, perhaps mediated by SDH, Tx availability and schizophrenia risk



#### PATHOGENS

#### Chagas disease in the Americas

Chagas Disease in the Americas: An
Analysis of the Current Situation
and Strategic Review of the Regional
Agenda. Final Report, 14–16 March
2023, Medellín (Colombia). Great work
of PAHO team and invited experts.



## FINE TAID JOURNAL



#### 2023 NUMBERS AND OUR GROWTH

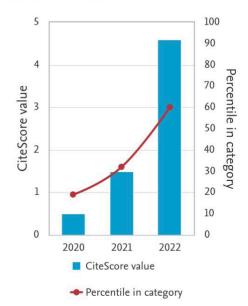
mpact Factor: 5.7

1 in Scopus (CiteScore: 4.6)
eadership: 188,794

M eet the editors

WE HAVE RETAINED A STRONG FOCUS ON PUBLISHING GOOD QUALITY SCIENCE AND EDITORIAL DECISIONS ARE NOT BASED ON NOVELTY OR PERCEIVED IMPORTANCE.

#### CiteScore trend



The <u>special collections</u> welcome contributions, which focus on but are not limited to the following areas:

- 2023: Pre-exposure Prophylaxis (PrEP) for Sexual Health and Wellness
- 2023: Update on invasive fungal infections
- 2023 Outpatient Parenteral Antimicrobial Therapy
- 2023: HIV and STI Prevention in Latin America
- 2023: INTEREST 2022: New perspectives in HIV treatment, pathogenesis and prevention in Africa
- 2022-2023: Infectious
   Diseases Due to Therapeutic

   Immunosuppression
- 2022-2023: Respiratory Syncytial Virus Infection.

