Methods Using Kaplan-Meier (KM) and Cox PH models adjusting for socio-demographic and clinical factors, we explored the effect on outcome of baseline resistance to pyrazinamide (BRZ) in the DR-TB group of participants.
Results 55 of 152 (36.2%) participants in the DR-TB cohort had BRZ based on phenotypic and genotypic drug susceptibility testing. Time to negative sputum culture for patients with and without BRZ was not statistically significantly different (aHR=0.79, 95% CI (0.54,1.15) p= 0.22). Relapse-free cure was documented in 42/51 (82%) participants with and 68/79 (86%) participants without BRZ (unadjusted Chi-sq test p=0.57).
Conclusion PZA resistance at baseline did not impact outcomes at week 8 or week 52 in DR-TB patients treated with BPaMZ. A regimen of pretomanid, moxifloxacin with a potent diarylquinoline could present an efficacious and better tolerated therapeutic alternative for DS- and DR-TB patients and should also be explored as a therapeutic option for DS-TB.

PA-460 IMPACT OF COVID-19 PANDEMIC ON THE PREVALENCE OF SURFACE CONTAMINANTS ASSOCIATED WITH HEALTHCARE WASTE MANAGEMENT IN A HOSPITAL IN YAOUNDE, CAMEROON

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Background An estimated 40% of Nosocomial infections have been attributed to cross-infection via the healthcare personnels' hands, which could result either directly and/or indirectly from touching contaminated surfaces and patient contact. The COVID-19 pandemic has been a stark reminder of the importance of basic infection prevention measures (hand washing, disinfection/decontamination, Personal Protective Equipment use) when providing patient care. Hence, illustrates the importance of establishing the prevalence of nosocomial contaminants found on fomites from March to August 2020 at the Biology, Emergency Departments and Disposal site of a hospital in Yaounde.
Methods In a cross-sectional study, 736 swabs were collected from trash bins (infectious and non-infectious) and surfaces (tables, sinks, chairs, countertops, desks, patient beds and bed stands) of all aforementioned sites. Inoculated on Mueller-Hinton agar, contaminants were isolated and, identified using Gram staining, classical biochemical tests (oxidase, catalase, coagulase, germ tube and Kligler Iron Agar) and grown on specific media (Hektoen Enteric Agar, Mannitol Salt Agar and Potatoes Dextrose Agar).
Results There was a high prevalence of surface contaminants (78.9%) especially for non-infectious bins (90.3%). Their mean frequencies were significant for sampled surfaces of the Biology Department, and only sampled beds of the Emergency ward indicating their equal potential to cause infections. In addition, highly touched surfaces were prone to S. aureus contamination (22.4%), a constituent of the human hand microbiota which suggests that the staff' hands could be the main vector of surface contamination in analysed units. In May, contaminants' frequencies dropped (24.9%) due to increase in the awareness of basic infection control measures amongst staff, staff rotations, changes in work hour schedules and hospitalisation beds' availability.
Conclusion The concept of environmental bacterial reservoir is a reality. Improvement strategies include interventions to reduce/contain the shedding of pathogens and, improving the efficacy of cleaning/disinfection of hospital surfaces and hand hygiene.

PA-463 PHASE 1B RANDOMIZED, CONTROLLED, DOUBLE-BLINDED, AGE DE-ESCALATION TRIAL TO EVALUATE THE SAFETY, REACTOGENICITY AND IMMUNOGENICITY OF BK-SE36/CPG MALARIA VACCINE IN BURKINABE HEALTHY ADULTS AND CHILDREN

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Background BK-SE36/CpG is a recombinant Plasmodium falciparum vaccine candidate targeting blood-stage parasites. The P. falciparum SE36 protein was expressed in E. coli, adsorbed to aluminium hydroxide gel, and reconstituted with CpG adjuvant. An acceptable safety profile of the BK-SE36/CpG vaccine was previously showed in healthy malaria-naïve Japanese adults. The aim of the Phase Ib study reported here was to assess the safety and immunogenicity in healthy malaria-exposed African adults and children.
Methods A double-blind, randomized, controlled, age de-escalating, clinical trial was conducted in an urban area of Ouagadougou, Burkina Faso. One hundred and thirty-five healthy participants aged 21–45 years, 5–10 years, and 12–24 months were randomized 2:1 to receive three vaccine doses of BK-SE36/CpG (BK) or rabies vaccine. Subjects were monitored within 7 and 28 days following each vaccination for solicited and unsolicited adverse events. Severe and serious adverse events were collected throughout the study duration (12 months). Immune responses were measured at baseline, 28 days after each vaccination, and at trial end.
Results Of the one hundred thirty-five subjects enrolled, one hundred thirty-four received all three scheduled vaccine doses. Five Grade 3 events unrelated to vaccination were reported in three subjects (3%) in the BK arm. Five SAEs reported, all due to severe malaria, were judged unrelated to the study vaccine. BK induced higher mean anti-SE36 antibody titers compared to control, with higher titers post-Dose3 compared to post-Dose2. A stronger immune response was observed in younger cohorts (12–24-month-old > 5–10-year-old > 21–45-year-old). In all cohorts, epitope mapping of sera from BK vaccinees showed predominant reactivity with the synthetic peptides that are lied into intrinsically unstructured regions.
Conclusion The BK-SE36/CpG vaccine was well-tolerated and immunogenic in all age groups. These results pave the way for further proof-of-concept studies with larger cohorts to demonstrate the efficacy of the vaccine.