both *B. melitensis* and *B abortus* in their culture and/or antibody test. There was no significant difference between the groups in terms of clinical cure, all-cause mortality, LOS, and end of therapy temperature, white blood cells counts, C-reactive protein levels, and erythrocyte sedimentation rates.

Conclusion. Due to lack of differences in clinical outcomes, all-cause mortality, LOS, and end of therapy parameters between the three groups, a regimen comprising two, rather than three, agents (namely doxycycline and rifampin) can be sufficient. Such finding complies with previous studies although replacing rifampin with an aminoglycoside might be superior per the World Health Organization guidelines for the treatment of brucellosis. Further studies with a larger sample size are warranted to confirm these findings.

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423. Ten-Year Experience of *Burkholderia pseudomallei* Infections in a Singapore Tertiary Hospital

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Background. *Burkholderia pseudomallei* is endemic in the tropics and associated with high mortality. We performed a retrospective study analyzing the clinical and microbiologic features of melioidosis, and predictors of mortality.

Methods. Patients with culture-positive melioidosis from 2006 to 2016 were identified from microbiologic records. Clinical data including demographics, treatment, and outcomes were extracted from medical records. Categorical variables were compared using χ^2 test or Fisher exact test while continuous variables were compared using Student's t-test or Mann–Whitney U test.

Results. Forty-three cases of melioidosis were identified. Presentations included fever (41.9%), respiratory symptoms (20.9%), and joint swelling (9.3%). 76.7% were bacteremic and 69.7% were culture-positive from a nonblood source. Mean time from presentation to positive microbiological data was 5.1 ± 6.4 days. Infection sites included pulmonary (62.8%), spleen (27.9%), skin/soft tissue (25.6%), and bone/joint (25.3%). Antibiotic susceptibility were as follows: ceftazidime (97.5%), imipenem (100.0%), trimethoprim–sulfamethoxazole (92.1%), amoxicillin–clavulanate (94.7%), and doxycycline (94.7%). Mean time from presentation to melioid-active coverage was 6.8 ± 9.1 days. Thirty-day all-cause mortality occurred in nine patients (from first positive culture); one patient died within 5 months. Univariable analysis associations with 30-day all-cause mortality were: intensive care unit (ICU) admission (OR 26.3, 95% CI 4.0–173.1, $P < 0.01$), mechanical ventilation (OR 15.0, 95% CI 2.6–85.0, $P < 0.01$), higher median Pitt Bacteremia Score (PBS) (4.0 vs. 2.0; $P < 0.01$), receipt of ceftazidime (vs. a carbapenem) as primary induction antibiotic therapy (OR 0.2, 95% CI 0.03–0.91, $P = 0.047$) and not receiving melioidosis-active induction intravenous antibiotics ($P = 0.04$). Multivariable analysis found mechanical ventilation to be an independent predictor for 30-day mortality ($P = 0.003$, OR 18.8, 95% CI 2.7–130.9).

Conclusion. ICU admission, a high PBS, and in particular, receipt of mechanical ventilation may help identify patients with high mortality risk. Delays in melioid-active therapy were not uncommon. Prompt recognition of melioidosis and early institution of active therapy, especially in the critically ill, may reduce mortality.

Disclosures. **All authors:** No reported disclosures.

424. Southern Arizona Town: Homes Colonized by Kissing Bugs. Is Chagas Disease Being Transmitted?

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Background. Bisbee, Arizona is a small mining community established 1880, located 11 miles from the United States–Mexico border with a total population of 5,500 residents. Homes in this town are revealing evidence of colonization by kissing bugs (triatomines), specifically *Triatoma recurva*, *T. rubida*, and *T. protracta*, which are known to harbor the causative agent of Chagas disease, *Trypanosoma cruzi*.

Methods. Community members who were bitten by triatomines, provided specimens from their homes, and completed a home evaluation as well as point-of-care testing for Chagas disease (Chagas Detect™ *Plus* (CDP) Rapid Test, InBiosInternational, Inc.).

Results. Twenty-two individuals from 17 households consented to participate and provided 117 triatomines collected from inside and/or outside their homes ($N = 70$ *T. rubida*; $N = 36$ *T. recurva*; $N = 11$ *T. protracta*). *Trypanosoma cruzi* DNA was detected by RT-PCR in 25.6% (30/117) of the total triatomines (31.4% (22/70) *T. rubida*; 18.2% (2/11) *T. protracta*; 16.6% (6/36) *T. recurva*). The median age of homes was 91 years. Mean persons per home was 2.2; with 1.0 dog and 0.8 cat per home. Seventy percent of homes used either a swamp cooler or central air conditioning. Only one home had used pesticides in an attempt to exterminate insects. All homeowners reported various wildlife near their home, including javelina, pack rat, rock squirrel, mule deer, and raccoon (Figure 1). Homeowners were asked to correctly identify these triatomines in a photo line-up of similar insects, and 75% of participants made a successful identification of at least one triatomine, 90.9% being able to identify *T. recurva*. When asked whether they had changed their sleeping patterns due to triatomine bites, 45.5% (10/22) had done so. The same surveyed group rated their frustration with triatomines in their home on scale of 1–10 (10 being the most frustrated) revealing a mean rating of 6.6; with nine individuals rating 10. CDP rapid testing of these participants ($N = 22$) were all-negative for serological evidence of *T. cruzi* infection.

Conclusion. Despite exposure to *T. cruzi*-positive triatomines among these household residents, some having sustained hundreds of bites throughout the years, we do not have evidence of transmission of Chagas disease. These are preliminary findings and further study is underway.

Figure 1.

Characteristic of home	Result
Median age of home	91 years
Persons / home	2.2 people
Dogs / home	1.0 dogs
Cats / home	0.8 cats
Use cooler or air conditioning	70%
Use pesticides	6%
Wild animals sighted around home	Raccoon, rock squirrel, mule deer, rats, javelina

Table 1: Results of home evaluation of owners bitten by kissing bugs (n=17)

Disclosures. **All authors:** No reported disclosures.

425. Chikungunya in Solid-Organ Transplant Recipients, a Case Series and Literature Review

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Background. Chikungunya virus is a recent emerging arbovirus in Latin America. Clinical manifestations can vary from fever and rash to severe chronic inflammatory arthritis. Few reports have been published regarding this infection in immunocompromised patients, including in solid-organ transplant (SOT) recipients.

Methods. We presented a case series of SOT recipients with confirmed Chikungunya infection by positive RT-PCR (LightMix® kit Chikungunya-virus, Light Cycler® Roche Diagnostics), during the 2015 epidemic in Colombia. In addition, we conducted a literature review, searching PUBMED, EMBASE, LILACS regarding Chikungunya infection in SOT recipients.

Results. Ten SOT recipients were included (five kidneys, four liver, and one liver/kidney transplant). The mean age of the transplant recipients was 47 years, 70% were women. The most frequent symptoms were arthralgia and fever. None of the patients required treatment in the intensive care unit; no fatal cases or graft rejection were reported. None of our patients had recurrent arthritis during the three months follow-up. In the literature review, we found 21 cases reported. All of them had a benign clinical course with no severe complications or death. No chronic inflammatory arthritis cases were reported.

Conclusion. CHIK infection in SOT recipient have a benign course, and have no chronic recurrent arthritis. We proposed that immunosuppression could decrease the risk of severe or chronic inflammatory manifestations.

Disclosures. **All authors:** No reported disclosures.

426. Post-chikungunya Chronic Disease and Its Impact on Quality of Life, Depression, Anxiety, Fatigue and Sleep Quality: Results From a 2-Year Follow-up Comparative Study of 62 Patients in La Virginia, Risaralda, Colombia

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Background. There are limited studies in Latin America regarding the chronic consequences of Chikungunya virus (CHIK) infection, known as post-CHIK chronic disease (pCHIK-CD), and its impact, not just on organic but also mental conditions. We assessed the longest follow-up cohort of pCHIK-CD in Latin America, at La Virginia municipality, Risaralda, a new endemic area of CHIK in Colombia.

Methods. We conducted a follow-up cohort ambispective study in Colombia of 62 patients diagnosed with CHIK that persisted with pCHIK-CD after >2 years (February 2015–December 2017), initially serologically confirmed. Cases were followed-up and assessed with the validated instruments: quality of life (QoL) 36-item short-form health survey (SF-36), Zung Self-Rating Depression Scale (SDS) Zung Self-Rating Anxiety Scale (SAS), Pittsburgh Sleep Quality Index (PSQI) (licensed), and Fatigue Severity Scale (FSS).

Results. We compared 43 patients with persistent disease (pCHIK-CD+) and 19 controls (pCHIK-CD-). Mean age 44.1 years old, 69% female. Differences in SF-36 median scores between both groups were pCHIK-CD- 83.2% and pCHIK-CD+ 51.4% ($P < 0.0001$), in six dimensions (physical functioning [89.5%/62.1%], role physical [89.5%/39.0%], bodily pain [88.2%/44.4%], general health [77.7%/51.4%], vitality [79.5%/506%] and health transition [68.4%/40.7%]), differences were significant ($P < 0.05$). Depression and anxiety symptoms were significantly higher among those with pCHIK-CD+, 48.8%:21.1% ($P = 0.04$) and 97.7%:84.2% ($P = 0.047$). Moderate-to-severe scores at SDS and SAS showed marked difference in those pCHIK-CD+ ($P = 0.039$). At the PSQI we found significant differences at wake-up time for pCHIK-CD+ (early, $P = 0.0069$), sleep less time ($P = 0.0121$), and with more somnolence ($P = 0.006$). FSS were significantly higher in those with pCHIK-CD+, 55.2:37.5 ($P = 0.0213$).

Conclusion. According to our results, after 2 years CHIK patients persisted with chronic disease, including impairment in QoL, depression, anxiety, sleep quality and fatigue. These results support previous case reports from La Reunion (France) and Colombia, but show new impacts on mental health in a long-term follow-up for a significant proportion of those infected with CHIK. These findings have significant implications in areas affected by chikungunya epidemics, as well later endemic areas with chronic disease.

Disclosures. **All authors:** No reported disclosures.

This abstract has been withdrawn at the author's request.

428. Mobile Phone Access and Comfort: Implications for HIV and Tuberculosis Care in India and South Africa

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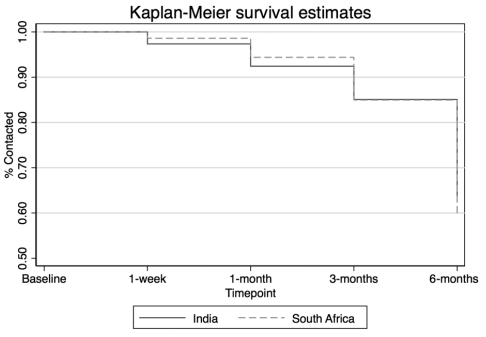
Background. India and South Africa shoulder the greatest global burden of TB and HIV, but care retention in these countries is suboptimal. Integration of mHealth into the health system has potential to strengthen retention. We conducted a study in two high burden yet disparate settings, Pune, India and Matlosana, South Africa, to (1) identify factors associated with mobile phone access, comfort of use and (2) understand long-term behavioral patterns of mobile phone access.

Methods. We conducted a cross-sectional study to assess demographics, mobile phone access, and comfort of use, followed by a longitudinal study to determine long-term access among adult participants (≥18 years) from 2014 to 2016. Participants were recruited from the TB clinic at Sassoon Government hospital in Pune and from four public clinics serving the general population in Matlosana. Univariate odds ratios compared characteristics of participants with discomfort texting to those who expressed comfort, as well as those unable to be contacted at six months vs. those contacted. We included variables significantly associated at the univariate level ($P < 0.10$), and those determined of importance a priori, in a multivariable logistic regression.

Results. We enrolled a total of 261 participants; 136 in India, 125 in South Africa. The ability to contact participants steadily decreased from 90% ($n = 122$) contacted at week one to 57% ($n = 75$) contacted at six months in India and 93% ($n = 116$) at week one and 70% ($n = 88$) at six months in South Africa (Figure 1). For India, adjusted analysis revealed that texting discomfort was significantly higher in unemployed (OR 4.97, 95% CI: 1.12, 22.09) and 35+ year old (OR 1.10, 95% CI: 1.04, 1.16) participants, while significantly lower in those with higher education (OR 0.04, 95% CI: 0.01, 0.14). In South Africa, 91% of participants ($n = 114$) reported comfort with text messaging.

Conclusion. The ability to maintain contact with participants by mobile phone in India and South Africa was poor at the 6 month timepoint. While mHealth has the potential to transform HIV and TB care in endemic countries, alternative approaches may be needed for certain subpopulations, including those who are older, unemployed and with lower education.

Figure 1. mHealth Callbacks



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