hospital in Lilongwe, Malawi, we analyzed readmission patterns in the inpatient medicine wards. We described the prevalence of early readmissions, assessed factors associated with readmissions, and explored the impact of HIV/AIDS on readmission.

Methods: We investigated the prevalence of and factors associated with all-cause early readmission using regression models with a log link and binomial distribution to estimate risk ratios (RR) and 95% confidence intervals (CI). A retrospective review of the medical ward database at Kamuzu Central Hospital was conducted between February and December 2013.

Findings: There were 3547 patients with an index admission and 74.4% of these survived and were eligible for readmission: 48.1% female, mean age 40.8, 38.5% HIV-infected. The prevalence of early hospital readmission was 5.5%. Persons who were HIV infected were more likely to experience an early readmission (9.2%) than those who were HIV-uninfected (3.5%) or with an unknown HIV status (3.3%). Factors associated with 30-day readmission were being HIV-positive (RR=2.59; 95% CI: 1.74- 3.83), comorbidity (RR=1.52; 95% CI: 1.11-2.06), and prolonged length of stay (14 days) at the index hospitalization (RR=5.01; 95% CI: 2.38, 10.53).

Interpretation: Targeting HIV-infected inpatients with comorbid conditions and longer index admissions may prevent early readmission and improve quality of care. Further investigation is needed to identify quality improvement initiatives.

Abstract #: 02CD005

Companion animals and home surface contamination in community-associated methicillin-resistant Staphylococcus aureus colonization of people

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Background: Households are increasingly recognized as sources of community-associated methicillin-resistant Staphylococcus aureus (CA-MRSA). This study was conducted to identify MRSA on home surfaces and pets of patients newly diagnosed with a CA-MRSA skin or soft-tissue infection (SSTI), and to evaluate these as risk factors for MRSA colonization in people over time.

Methods: Surfaces and pets were sampled in homes enrolled in a three-arm non-blinded randomized controlled trial (NCT00966446) that evaluated household-wide decolonization of people. Index patients (adults and children) with MRSA SSTI and their household members were recruited from five U.S. hospitals during 2012. Prior to randomization and three months later, eight standardized home sites were sampled using autoclaved electrostatic cloths. All pets were swabbed at multiple anatomic sites. Broth-enrichment culture was performed to identify staphylococcal isolates. PCR methods were used for staphylococcal speciation (nuclease gene) and methicillin resistance (mecA/mecC genes). Unadjusted and adjusted logistic regression analysis was used to evaluate risk factors for MRSA colonization in patients and household members. University of Pennsylvania and Johns Hopkins University IRB and ACUC approved this study. Participants provided written informed consent.

Findings: Baseline MRSA prevalence rates were 34% (30/88) of index patients and 26% (78/301) of household members. At baseline, 53% (47/88) of homes were MRSA contaminated at one or more sites, 10% of homes had MRSA-positive pet(s), and 19% had pet(s) carrying the veterinary pathogen Staphylococcus pseudintermedius. People living in MRSA-contaminated homes had 3.9-times higher adjusted odds of being MRSA colonized, versus those in uncontaminated homes ([95% CI: 1.80, 8.53], p=0.001). Having a pet with S. pseudintermedius was associated with a protective effect (aOR 0.35 [95% CI: 0.14, 0.87], p=0.01). Three-month MRSA prevalence rates were 31% (17/55) of index participants and 15% (27/183) of household members. At three months, 44% (24/55) of homes were MRSA contaminated, 9% had MRSA-positive pet(s), and 24% had pet(s) carrying S. pseudintermedius. People living in MRSA-contaminated homes had 4.4-times higher adjusted odds of MRSA colonization [95% CI: 1.97, 9.78], p=0.001). Living with MRSA-positive pet(s) was associated with 4.1-times higher adjusted odds [95% CI: 1.26, 13.2], p=0.02). Having more pets in the home was associated with a protective effect (aOR 0.75 [95% CI: 0.59, 0.96], p=0.02).

Interpretation: This is the largest study that has tested pet carriage and home contamination with MRSA colonization in people. It is unique in its detailed assessment of pet staphylococcal carriage. MRSA colonization in people was associated with MRSA-contaminated homes and MRSA-positive pets. Having pets with S. pseudintermedius, or having more pets in the home, offered protection against colonization in people. Interventions that target home environments and MRSA-positive pets warrant further investigation as strategies to curtail human MRSA.

Abstract #: 02CD006

Community-based social mobilization and communications strategies utilized in the 2014 West Africa Ebola outbreak

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Background: The current Ebola epidemic in West Africa has presented a major public health challenge to both the affected countries and the international health community at large. Unfortunately, the bulk of previous research has centered on clinical care, transmission risks, and epidemiological tracing due to the immediacy of addressing patient needs. Minimal efforts have focused on evaluating community-based social mobilization strategies in real-time, which present a crucial aspect of breaking transmission chains and increasing awareness. This study aimed to characterize and assess the methods utilized in the current Ebola response operation by depicting the experiences and perspectives of local Guinean Red Cross (CRG) volunteers and primary response staff working on the frontline of the outbreak.

Methods: The authors performed a qualitative study in Guinea, consisting of interviews and focus groups in Conakry and Guéckédou, the original outbreak epicentre and location of the primary Ebola treatment center. Additional recruitment was conducted at the International Federation of the Red Cross (IFRC) Africa Zone office in Nairobi. Study participants were identified through expert purposive and convenience sampling methods, and included: IFRC staff in Guinea, Nairobi, and Geneva; local CRG staff and volunteers; Ministry of Health personnel; staff from other major international humanitarian partner organizations working in Guinea; and community members. Due to the immediate nature of the outbreak and time-sensitivity of response activities, only verbal informed consent was obtained.