of antibiotic prophylaxis. The most frequently prescribed pharmacological group of antibiotics corresponded to cephalosporins.

**Conclusion.**  Antimicrobial education or restriction strategies are required to correct the high percentage of errors observed in antibiotic prescriptions. Knowing this baseline state is the initial step for the formulation of antimicrobial use optimization interventions that reduce adverse effects, costs, and antibiotic resistance rates. Despite having statistically significant data between prescription errors and the indication of antibiotics as prophylaxis, the heterogeneity of the services prescribed does not make a conclusion of the probability of occurrence evident possible, however it shows the services that need more training in the prescription of antibiotics.

#37 Human Toxocariasis: eleven-year experience in a tertiary-care level pediatric hospital in Mexico City

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**Background.** Human toxocariasis is not subject to continuous epidemiological surveillance. However, some states that report seroprevalence show a significant association between larva migrans (LM) and pediatric cases (OR 3.2; IC95 2.541-4.279). Data is scarce about infection in animal reservoirs, more specifically dogs, in which there are reports of a 12-18% positivity rate. As for the role of the environment there is evidence to support high contamination levels. Most symptomatic pediatric patients develop ocular presentations that can lead to permanent vision loss, and diagnosis becomes a challenge because serological markers and peripheral eosinophilia can be absent.

**Method.** A retrospective, transverse, descriptive study including 17 patients with diagnosis of toxocariasis according to electronic medical records. For categorical variables, frequencies and percentages were analyzed and for discrete variables median and ranges were calculated.

**Results.** Nine patients (52.9%) presented with ocular LM of which, 55.6% were female with a median age of 5 years at diagnosis (IQR=9). 44.4% came from the coastal state of Veracruz and 88.9% had close contact with either dogs or cats. Two patients presented with eosinophilia and only one had positive anti-Toxocara antibodies at 2.12 OD. Under suspicion of retinoblastoma, two patients underwent enucleation and diagnosis was made with pathology findings. Eight patients (47.1%) presented with visceral LM of which, 62.5% were female with a median age of 7.5 years at diagnosis (IQR=12). 62.5% of them had close contact with either dogs or cats. In this case, all patients had history of peripheral eosinophilia but it was only in 75% that it was corroborated during initial workup at our institution ranging between 500-9400 cells/mm3 and all of them had positive antibodies that ranged between 1.02-3.2 OD. Five patients received oral treatment with albendazole for 3-7 days.

**Conclusion.** Toxocariasis is a neglected parasitic disease with scarce published data. Pediatric patients are an important vulnerable group specially for ocular presentations. The differential diagnosis of leukochoria should always include retinoblastoma, but as shown in this study, also ocular LM. As new approaches to global health take a push towards prevention, our study can set a precedent in order to standardize patient care and resource allocation.

#39 Impact Of Covid-19 Pandemi On Mortality Profile Of Pediatric Oncology Patient In Referral Hospital

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**Background.** Cancer patients are at higher risk of COVID-19 infection and more likely to have higher morbidity and mortality than the general population. While cancer is not itself a direct cause of death around the world, it is particularly vulnerable to comorbidities and with limited health facilities, that might cause delayed of treating, cancer death rate in children could reach 90%, this condition would become bigger in the pandemic condition especially in hospital that appointed as a referral hospital for COVID-19 but also tertiary hospital for hematology and oncology cases. The aim of the study was to describe is there any differences mortality profile of pediatric oncology patient before and during COVID-19 pandemic.

**Method.** We collected data pediatric oncology patient aged 1 to 18 years that admitted to Hasan Sadikin General Hospital from Hospital Information Systems, IP-CAR, and Waiting List of Oncology Ward Hospital Admission, data conducted to differentiate between Admission Rate, New case Diagnosis and abandonment rate before and during COVID-19 pandemic. Mortality data and what might cause it also collected after audited by experts from Hasan Sadikin General Hospital.

**Results.** There were 87 death cases from January to December 2021 when pandemic has already happened. Acute lymphoblastic leukemia still the main oncology diagnosis for those cases (33%), most of the death cases was caused by septic Shock (24%), the second leading cause was covid 19 (8%). We also found in our research there was a significantly increased rate of treatment abandonment from 1.1% before to 17% during COVID-19 pandemic. This may pose risk for the patients involved, not only cause treatment failure, increased toxicity or complications.

**Conclusion.** Pandemic COVID-19 increased abandonment rate that could impact the general condition of oncology patient, that might indirectly related to mortality rate. While infection as the leading causes of death before and after pandemic remains the same but the distinction was the COVID-19 as a second most cause of death. Optimal efforts should be made to avoid abandonment and prevent the occurrence of infection.

#43 Fungal colonization by Pneumocystis is highly frequent in the human placenta at birth.

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**Background.** Pneumocystis is well-known as a pathogen of the severely immunocompromised host. However, this fungus is also a frequent colonizer of immunocompetent hosts inducing subclinical characteristic histologic features of Th2-type lung inflammation, and is associated to asthma. The pathology that Pneumocystis induces in the lung of non-severely immunocompromised hosts warrants exploring whether it colonizes and induces pathology in other organs. Physiologically immunosuppressed pregnant women display increased nasal carriage of Pneumocystis and, of interest, Pneumocystis pneumonia were reported in neonates or still-born infants before the AIDS epidemic, and Pneumocystis-DNA has recently been identified in formalin fixed fetal lungs. In addition, transplacental transmission has been documented in rabbit does that have a hemomonochorial placenta similar to humans. Moreover, fungal species are a frequent cause of chorioamnionitis and fetal death in farm cattle. Motivated by these observations, we undertook a search for Pneumocystis in the placenta of full term pregnancies in Santiago, Chile.

**Method.** 106 prospective volunteer mothers were approached during early labor at the San Jose Maternity Hospital in Santiago. After signed informed consent, the placenta of 91 full-term deliveries (37-42 weeks) was collected in a sterile bag and transported to the research laboratory for immediate surgical removal of 0.5 cm of surface of each cotyledon at the maternal side in a laminar flow hood before sampling. The exposed cotyledons were then dissected to obtain approx 2 g (1.02-2.2 g) tissue from each cotyledon and samples from 3-4 cotyledons were pooled in two samples of approx 10-80.6 grams per sample. A 2 g DNA fragment from the genome was homogenized and DNA was extracted using QIAMP DNA extraction kit (QIAGEN) with an additional bead beating step. Pneumocystis was diagnosed by nested-PCR amplifying the mLSU1RNA and the beta-tubulin loci of P. jirovecii. Pneumocystis was additionally examined by microscopy immunohistochemistry in a subset of DNA positive samples using immunofluorescence kit (Meridian).

**Results.** Pneumocystis jirovecii-DNA was detected by amplification of the two loci in 35 (38.5%) of 91 placenta. In 25 after analysis of the first sample tissue pool, and in 10 (40.7%) after analysis of the second pooled sample. Characteristic Pneumocystis cyst forms were documented by IF microscopy in 4 P. jirovecii DNA positive samples.

**Conclusion.** Pneumocystis colonization of the placenta at full term is highly frequent and can be detected by DNA amplification and, more laboriously, by immunohistochemistry and microscopy. Placental colonization is focal, similar to what occurs in the lung during primary infection. Data suggests transplacental as a route of transmission of Pneumocystis in addition to the aerial route in humans. It also warrants exploring placental inflammation associated to Pneumocystis as documented in the colonized lung. Further studies are needed to determine the significance of placental colonization by Pneumocystis in the placental unit.

#47 RESULTS OF AN EDUCATIONAL COMPONENT OF DECREASING TIME TO THERAPY (DoTT) IN PEDIATRIC CANCER PATIENTS WITH FEBRILE NEUTROPENIA IN PERU

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**Background.** In low- and middle-income countries, a limitation for optimal treatment of children with fever and neutropenia (FN) due to chemotherapy is the delay in administering the first dose of antibiotics. DoTT is a quality improvement project implemented in Peru and aligned to the WHO Global Initiative of Childhood Cancer.

**Method.** This study was performed at Hospital Edgarado Rebagliati Martins, a tertiary-level hospital in Lima, Peru from January 1, 2019 to December 31, 2020. The time period included was from admission to the ED and administering the first dose of antibiotics. Patient Time to Arrival, PTA, is the time elapsed between onset of symptoms and arrival to the hospital. The intervention consisted of a synchronous and asynchronous educational course on managing FN in children with cancer. Trainees were attending pediatricians and pediatric residents. We compared the TTA between 22 patients admitted from October to November 2021 with fever and neutropenia (after educational intervention) and baseline data of 99 patients from 2020 January and 2021 August (before intervention).

**Results.** The median age considering the two groups was 5 years, 55 patients were female and 66 were male. 104/121 patients had leukemia, and 17/121 patients had solid malignant tumors. No patients required admission to ICU or died of sepsis in the pre-intervention group, in the post-intervention group one patient required admission to ICU and one patient died of sepsis. In the pre-intervention group (97 patients), the median TTA was 171 minutes (IQR: 102-293), and in the post-intervention group, the median TTA was 60 minutes (IQR: 35-73). Early results indicate a statistically significant decrease in the time to antibiotics (TTA) in pediatric patients presenting to the emergency room (ER) with FN.

**Conclusion.** This study suggests the potential impact of the educational intervention instituted to decrease DoTT in pediatric patients with cancer and FN, which encourages the team to continue with the intervention in other health care providers in the emergency room. The PTA was very high in both groups and indicated the need for an additional intervention to improve these results.