MULTIPLEX REAL-TIME PCR IN THE DIAGNOSIS OF ACUTE DIARRHEA IN CHILDREN IN LUANDA, ANGOLA

BACKGROUND:
Diarrhea is globally the second leading cause of death in children under five, killing around 1,500 children every day. In diagnostics, molecular methods which can detect several pathogens with high sensitivity are replacing traditional assays. We aimed to investigate enteropathogens in children with and without diarrhea in Luanda, the capital of Angola.

METHODS:
We examined 200 stool samples from 101 children with acute diarrhea and 99 children without diarrhea, respectively, in the Pediatric Hospital of Luanda with multiplex real-time polymerase chain reaction (PCR; Amplidiag Bacterial GE, Stool Parasite, and Viral GE kits) searching for 17 enteropathogens.

RESULTS:
The median age of children was 11 months (IQR 17). When age and malnutrition were taken into account, diarrhea associated with enterotoxigenic and enteroaggregative Escherichia coli, Shigella, Campylobacter, rotavirus, sapovirus, and Cryptosporidium.

CONCLUSION
Multiplex PCR detected enteropathogens in almost all stool samples of children in Luanda. However, in children with diarrhea this occurred more often; they showed more mixed infections with different pathogen species and pathogen groups than children without diarrhea.