Travel Destination, Demographics, and Underlying Medical Conditions Among Travelers Seeking Yellow Fever Vaccination at a Large Academic Medical Center in the U.S.

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INTRODUCTION

Yellow Fever vaccine (YF-VAX) is licensed as a pivotal preventative intervention in routine immunization programs in endemic areas, and for those traveling to YF endemic areas. YF-VAX has the potential for the development of viscerotropic and neurotropic disease. Screening of travelers during the pre-travel encounter is a necessary intervention to identify risk factors to prevent life-threatening complications associated with YF-VAX.

METHODS

We performed a retrospective analysis of 964 patients receiving YF-VAX from 31 Oct 2016 to 7 Jul 2019 at the University of Colorado Hospital, Aurora, CO, U.S. Percentages, means, and standard deviations were calculated for categorical and continuous variables, respectively.

RESULTS

The average age of patients receiving the vaccine was 39±18 years with a range from 6 months to 83 years. Patients who were 60 years of age and older represented 17% of the total study population. There were more females (52.1%), and most of the patients were identified as Caucasians (63.7%). Most travelers were from Colorado (96%). The average duration between vaccine administration and travel was 43 days. The most common reasons for travel included leisure (42%), followed by visiting family and friends (17%), and mission trips (10%) (figure 1). Patients reported that they would be travelling to Africa (58.4%) or South America (41%). The primary destination for patients overall was Kenya (21%), Uganda (12%), and Tanzania (12%) in Africa; and Peru (15%) and Brazil (14%) in South America (figure 2). Uncommon comorbidities included a history of hematologic disorders (3.7%), HIV infection (2.3%), and Diabetes Mellitus (2.8%). No evidence of mild or life-threatening reactions to YF-VAX occurred in this large cohort.

During the pretravel medical encounter, individualizing YF-VAX recommendations by carefully identifying the type of travel, itinerary, and underlying medical conditions, allows providers to administer YF-VAX to travelers safely, including those over 60 years of age or those with immunologic comorbidities.

Figure 1.

Figure 2.