Abstract

The Ready-to-Go Questionnaire predicts health outcomes during travel: an analysis of TOURIST2 smartphone data

Background: The Ready-To-Go (R2G) Questionnaire is a tool for rapid assessment of health risks for travel consultation. This study aims to assess the utility of the R2G Questionnaire in identifying high-risk travelers and its association with health events and behavior during travel in the TOURIST2 prospective cohort of travelers.

Methods: TOURIST2 data were used to calculate the R2G medical and travel risk scores and categorize each participant based on their risk. The TOURIST2 study enrolled 1,000 participants from Switzerland's largest travel clinics, Zurich and Basel, between 2017-2019 who completed a daily smartphone application survey before, during, and after travel on their health events and behaviors. We used regression models to analyze the association of incidence of health events overall and by health domain. Incidence rate ratios (IRR) are displayed with 95% confidence intervals (95%CI).

Results: R2G high-risk travelers experienced a significantly greater incidence of health events compared to lower-risk travelers (IRR=1.275, 95%CI:1.223-1.329). Both the medical and travel scores showed significant positive associations with incidence of health events during travel, with increases in all health domains except skin disorders. Medical and travel risk scores were associated with different patterns in behavior. Travelers with chronic health conditions accessed medical care during travel more often, had greater difficulty in carrying out planned activities, and rated their travel experience lower. Travelers with increased travel-related risks due to planned travel itinerary had more frequent risky animal contact and accidents/injuries.

Conclusions: The R2G Questionnaire is a promising risk assessment tool that offers a timesaving and reliable means to identify high-risk travelers. Incorporated into travel medicine websites, it could serve as a pre-consultation triage to help travelers self-identify their risk level, direct them to the appropriate medical provider(s), and aid practitioners in giving more tailored advice.