Information System for Tablets Identification (ISTI)

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INTRODUCTION

The consumption of anxiolytics and hypnotics, such as benzodiazepines (BZD) and similar products, has reached record levels in Portugal, with 10.5 million packages of these products being sold in 2018 (1). The high number of BZD prescriptions represents a serious risk to public health (2,3). The rapid identification, by health professionals, of which drug or drugs were consumed may be of paramount importance in cases of accidental or premeditated intoxications, such as suicidal or homicidal attempts.

OBJECTIVES

In order to address this problem and provide a tool for the identification of drugs of abuse from the visual information retrieved from pills, a software application is under development: **Information System for Tablets Identification (ISTI).**

MATERIAL & METHODS

✓ Tablets from drugs were purchased from Portuguese pharmacies.

✓ Photos were taken from front and back side.

✓ Key physical characteristics of each pill were determined and registered.

✓ [...] easy maintenance, through a simple backoffice.

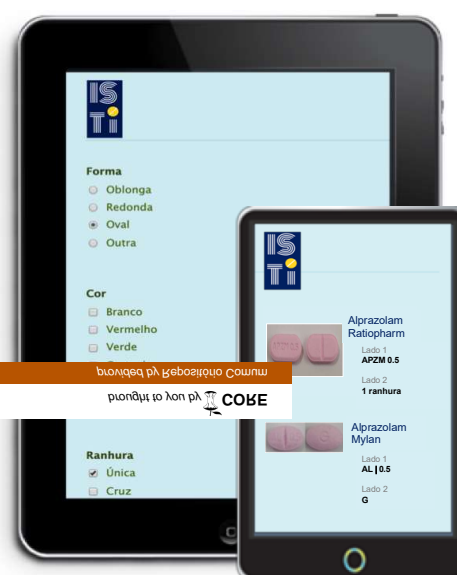✓ The user interface will be developed using the Shiny library for R.

RESULTS

The ISTI core is an identification algorithm targeted to matching results by score.

The application can either be accessed from a computer or from a mobile device.

If necessary, agreements will be proposed to the national regulatory authorities in order to assure that this data is effectively kept up to date.

DISCUSSION & CONCLUSIONS

ISTI's target is to **assist health technicians (doctors, nurses or pharmacists), police officers and forensic investigators in identifying medicine pills,** in the absence of the original packaging.

Although similar applications exist in the USA, to the best of the ours knowledge, **ISTI is the first one developed for the Portuguese market** with this purpose.

References
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