

ONE-YEAR PHARMACY-LED RAPID COVID-19 ANTIGEN TESTING: A CROSS-SECTIONAL STUDY

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1. BACKGROUND

The COVID-19 pandemic has put community pharmacists at the frontline of prevention, preparedness, response, and recovery efforts. In 2021, pharmacies continued to provide rapid antigen testing in response to this public health emergency [1].

2. OBJECTIVE

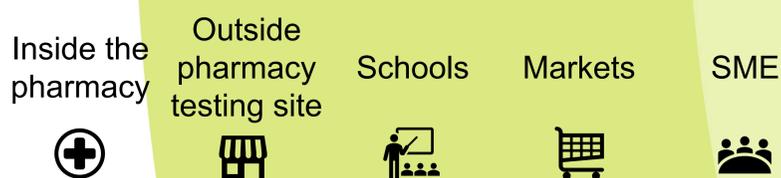
To describe one-year results of rapid COVID-19 antigen testing led by two pharmacies in Portugal.

3. METHODS

- Retrospective cross-sectional descriptive analysis.
- Rapid COVID-19 antigen testing targeted regular and occasional patients presenting:



- Testing provided 7 days a week / 365 days during pharmacies' operating hours in various settings:



- Rapid COVID-19 Wondfo 2019-nCoV[®] (Lateral Flow Method) and Coronavirus Ag Rapid Test Cassette[®] (Swab) used for most antigen tests. PCR tests were also performed but were not included in this study.
- Main outcome measure: test positivity rate.
- Continuous data were summarized using mean (SD) and median (IQR). Categorical data were presented using frequencies and percentages.
- We collected and analyzed one-year patient anonymous secondary real-world data (26 Feb 2021-15 Feb 2022) in Excel[®] for Microsoft[®] 365.
- We calculated the country's average test positivity daily rate for the same period based on published data [2].

4. RESULTS

A total of 42,960 rapid COVID-19 antigen tests were performed in the second year of the pandemic:

Table 1. Patient demographics

Demographics	
Female, n (%)	21,748 (50.75%)
Mean age (SD)	38 (18)
Median age (IQR)	37 (25-51)
≥65 years old, n (%)	3,112 (7.25%)

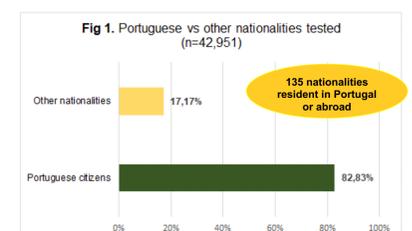
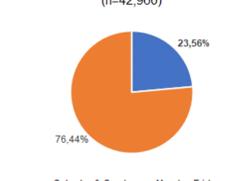


Fig 2. Tests on weekends vs workweek (n=42,960)

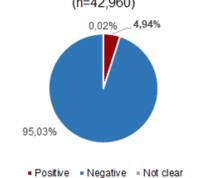


Tests performed on weekends accounted for 24% of all tests. Friday was the busiest day of the week.

The overall average test positivity rate during this period was 4.94%, although seasonal variations may exist.



Fig 3. Average positivity rate (n=42,960)



Results were provided on spot to patients, recorded in pharmacy claims dispensing software Sifarma[®], and electronically transmitted to the national system of epidemiologic surveillance SINAVE[®].

Pharmacists provided additional counseling on isolation measures and symptom management to Portuguese and foreign citizens and continued chronic medication supply and disease monitoring to regular patients.

The average test positivity daily rate for Portugal for the same period was 4.44%.

5. CONCLUSION

An average of 4.94% of tests were positive for COVID-19, in line with the country's average for the same period, and the World Health Organization (WHO) recommended positivity rate maximum threshold issued in May 2020 [3] although this recommendation is no longer applicable as mass immunization unfolded. There may be patients who performed more than one test (limitation).

These one-year findings demonstrate the powerful contribution of pharmacies to Sustainable Development Goals (SDG) 3 (Good Health and Well Being) and 17 (Partnerships for the Goals), in 1) preventing epidemic transmission and decreasing avoidable hospital emergency room visits, hospital admissions, and other NHS healthcare resources; 2) improving equity and access; 3) feeding the national system of epidemiologic surveillance. Finally, the additional counseling and medication continuity for chronic disease regular patients also contributed to keeping these patients monitored in the absence of face-to-face primary care appointments.

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