

USABILITY OF A SMARTPHONE APP FOR SKIN CANCER DETECTION

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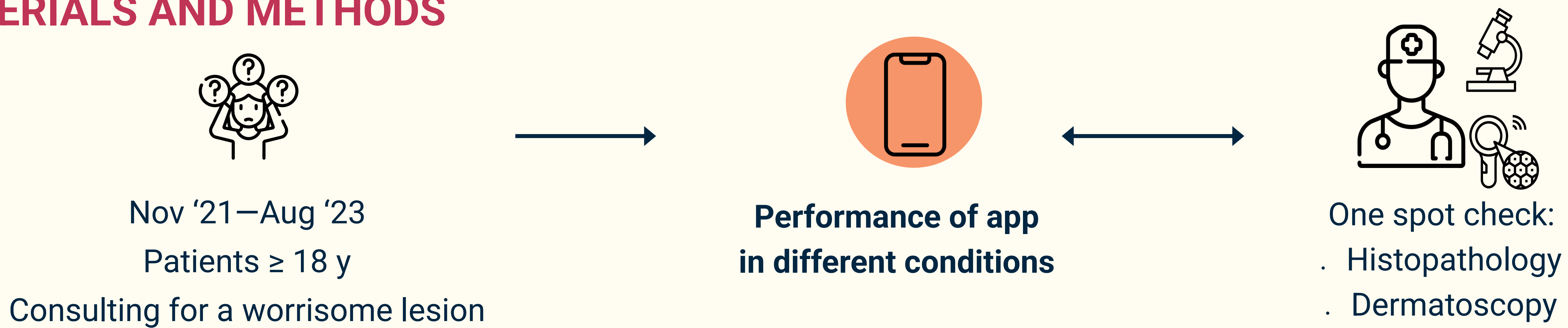
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INTRODUCTION AND OBJECTIVES

The incidence of skin cancer is increasing in Europe. With new technologies available, there is growing interest in **smartphone apps** to assist the **general population** in **early detection of skin cancer**. Some of these apps have been officially classified as medical devices. However, very few studies report on their performance in real-life conditions (1). In this prospective study, we investigate the **usability of one of the most documented skin cancer detection apps in different conditions**.

(1) Freeman K et al. Algorithm based smartphone apps to assess risk of skin cancer in adults: systematic review of diagnostic accuracy studies. BMJ. 2020 Feb 10;368:m127.

MATERIALS AND METHODS



RESULTS

Photo conditions
n=160

Standard conditions
(Huawei, 90 degree photo angle, researcher photographer, artificial light)

45 degree photo angle

Patient photographer

Daylight

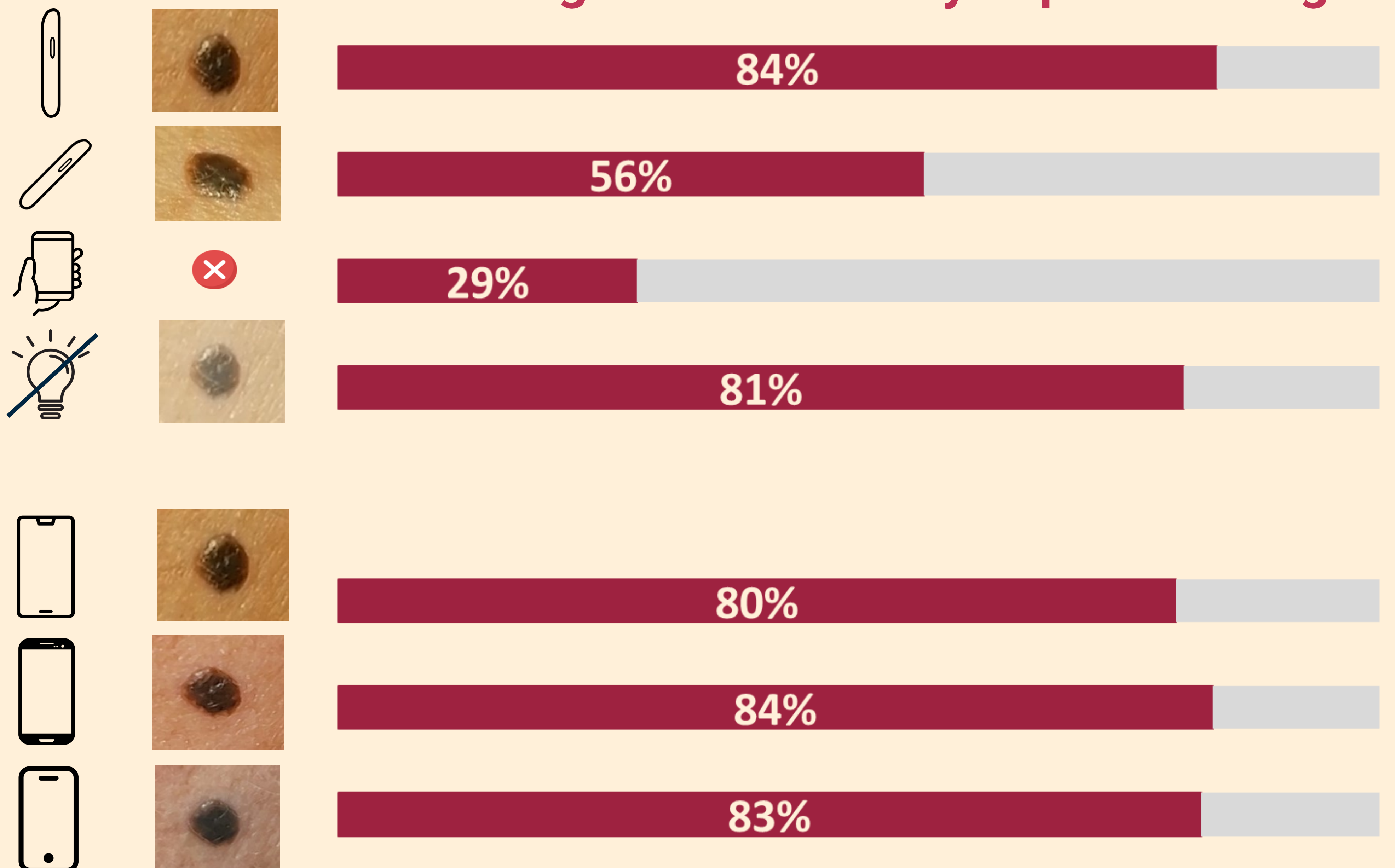
Smartphone devices
n=625

Huawei

Samsung

iPhone

Percentage of successfully captured images



Performance of app: n=1904 lesions: manuscript in preparation

CONCLUSION

Smartphone apps could aid the general population in early detection of skin cancer.

Besides the critical need for clinical validation of app performance, the presented results suggest that **other factors could also impede their effectiveness in real-world use**.

