

U-AID: mobile device inhaler teaching to improve inhaler technique

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Abstract

Background: Inhalers are commonly used in asthma and COPD patients. Studies assessing technique have shown errors in many different steps. However, resources for correct technique provided to patients are lacking.

Objective: The goal of this study was to determine if teaching inhaler technique using a mobile application affects inhaler technique.

Methods: Patients were given either an HFA or a diskus inhaler with manufacturer instructions, then given the other inhaler with the app instructions. The primary outcome was determined using a grading rubric compiled from the manufacturer's package insert to assess technique with a point scoring system. Secondary outcomes included average time taken per inhaler device and subjective confidence level before and after study.

Results: A total of 10 participants were included in this study. The mobile app group was found to have better technique with the Diskus inhaler compared with the control group. There was no significant difference in the HFA group in technique scores, however, the percentage of participants that had an error in the step order in the mobile app group was higher than the control group (60% vs 40%). With the Diskus inhaler, the mobile app group showed less participant errors in the step order compared to the control group (20% vs 40%).

Conclusion: Inhaler technique improved with use of a mobile application. However, further studies and app improvement are needed to entirely assess the benefit of mobile applications with inhaler technique.