Predictors of Good Inhaler Technique in Asthma and COPD.
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The use of inhalers or other devices is dependent on proper technique.

**Aim:** To evaluate Asthma and COPD patients and determine factors that predict proper inhaler use.

**Methods:** 167 patients (Male 45%, Mean age 57.6, std 15.3 years) were recruited both from hospital outpatients and from the community. Patients had to be on regular inhalers. 41.3% were under the care of a respiratory physician, 25.7% GP, 19.8% both, and 12.3% none. A questionnaire was filled by the patient followed by direct observation of inhaler technique.

**Results:** Self-rating of inhaler technique 0-10 mean 7.91, sd 2.06. 41.3% were under the care of a respiratory physician, 25.7% GP, 19.8% both, and 12.3% none. A questionnaire was filled by the patient followed by direct observation of inhaler technique.

- 66% of patients obtained a score of 10/12 or more in their inhaler technique, most likely due to better hand to eye coordination.
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**Conclusion:** Patients' self-rating, repeated physician demos, health professional demos, larger duration of use, education level, male gender and lower reliever use predicted good inhaler technique.

- 66% of patients obtained a score of 10/12 or more in their inhaler technique.

The four steps of inhaler technique which were most mistaken were:

1. Step 2—shaking the inhaler well for 5 seconds, Step 5—tilt your head back slightly, Step 6—inhale completely away from the inhaler and Step 10—hold your breath for ten seconds or as long as is comfortable.

- 66% of patients obtained a score of 10/12 or more in their inhaler technique.

Male gender was found to be a positive predictor of good inhaler technique, most likely due to better hand to eye co-ordination.

**Percentage of patients by number of critical errors.**

**Percentage of patients with errors in technique.**

**Steps for correct inhaler technique.**

1. Remove the cap from the inhaler.
2. Shake the inhaler well for 5 seconds.
3. Insert the inhaler into the open end of the chamber and ensure that the inhaler fits properly.
4. Sit up straight or stand up.
5. Tilt your head back slightly.
6. Exhale completely away from the spacer.
7. Place the mouth piece in your mouth and seal your lips tightly around it.
8. Press the inhaler and breathe in steadily and deeply.
9. Exhale completely away from the inhaler.
10. Hold your breath for 10 seconds or as long as is comfortable.
11. Exhale slowly.
12. Remove the inhaler from the chamber and replace covers.

Correct and incorrect steps performed using pMDI.

Steps for correct inhaler technique.

**Predictions of pMDI inhaler technique.**