

# Preference Differences Between Patients and Pulmonologists Regarding Inhalation Devices for COPD

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## INTRODUCTION

- Inhaled medications are preferred for COPD as they target the airway for direct bronchodilator and/or anti-inflammatory activity
- Many devices are available to deliver inhaled medications and meet patient's preferences such as: pressurized metered dose inhalers (pMDIs), dry powder inhalers (DPIs), soft mist inhalers (SMIs), and hand-held small volume nebulizers (SVNs)
- Currently, no guidelines or strategies recommend which delivery device to use, and which
  patient type would differentially benefit from one delivery device over another
- Healthcare professionals are solely responsible for matching a prescribed device to patients as well as to provide the necessary training
- The purpose of this study was to determine preferences of pulmonologists and COPD patients regarding delivery systems

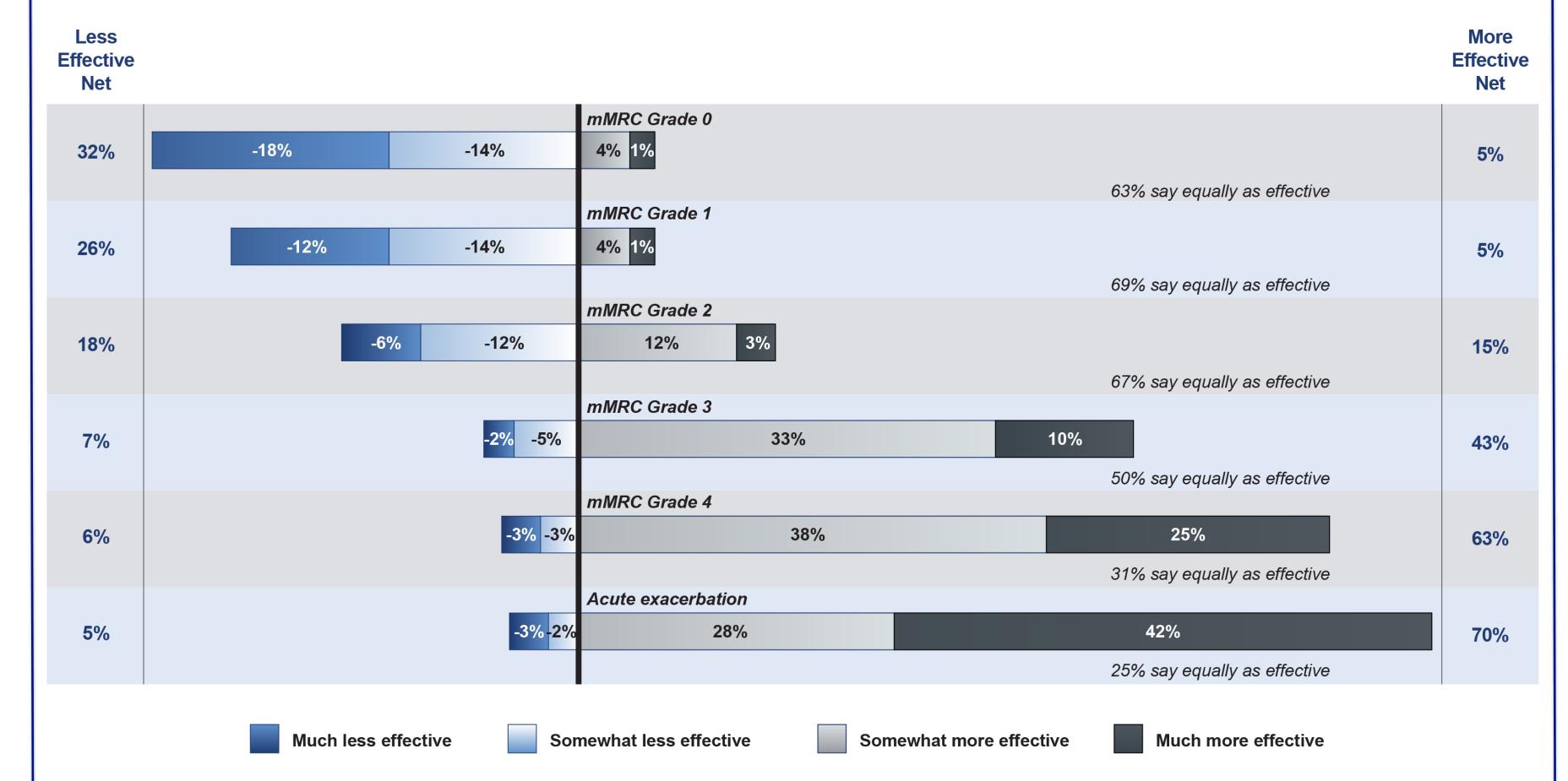
### **METHODS**

- Two online surveys were designed by a steering committee including ATS clinicians and scientists and conducted by Harris Poll between January 7 and January 29, 2016
- Pulmonologist Survey
  - US pulmonologists and pulmonary fellows
  - Solicited via email from the ATS membership roster as well as from attendees of the ATS 2014 and 2015 International Conferences
  - All had previously indicated "COPD" as a topic of interest
- Patient Survey
  - Recruited in the USA from the Harris Poll Online Panel and previously identified themselves as having a diagnosis of COPD
  - At least 40 years of age
- Data were not weighted and are therefore representative only of the individuals who completed the survey

## RESULTS

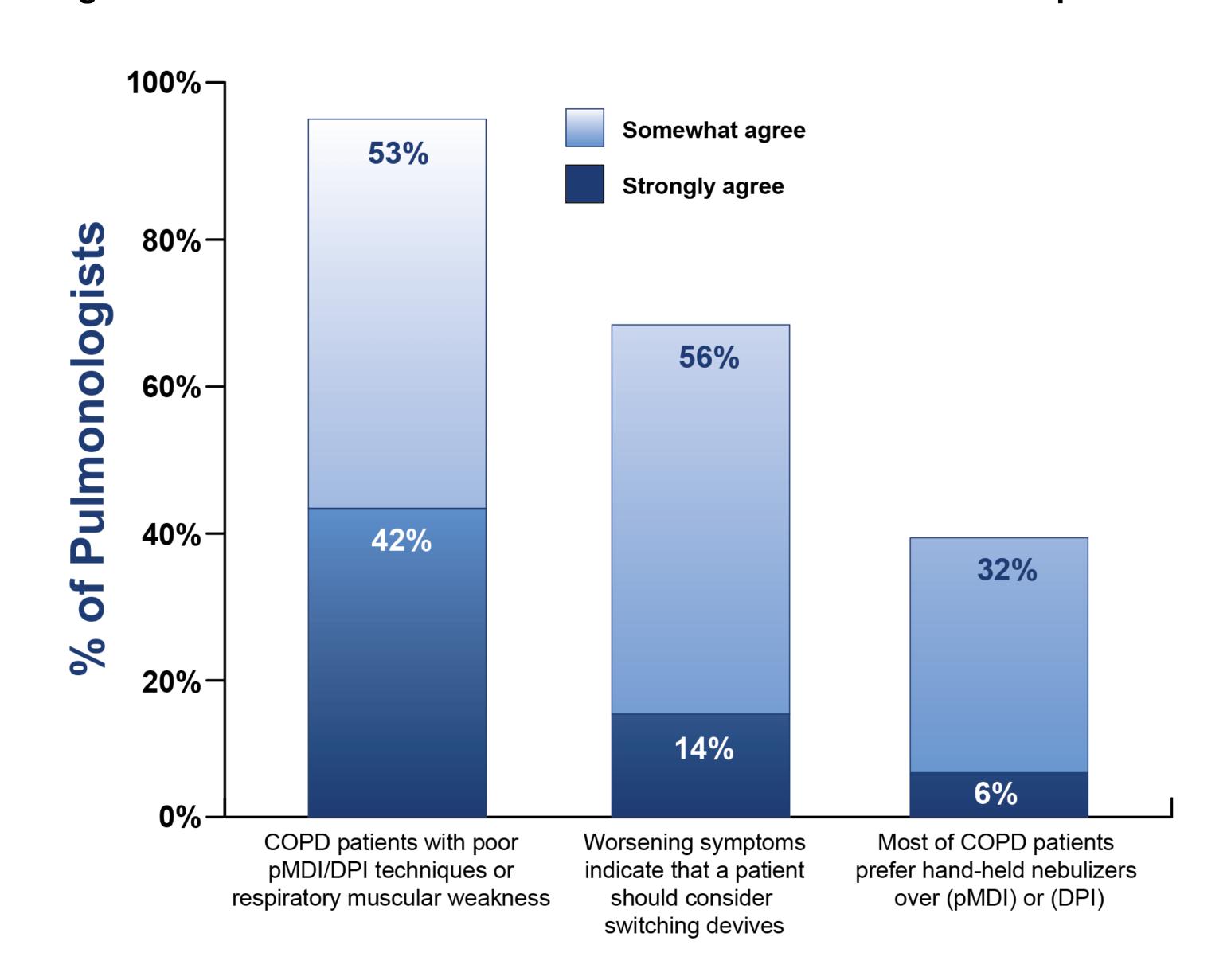
Specialty	% of Respondents (n=205)
Pulmonologist or pulmonary critcal care	81
Fellow / in training	19
Year in Fellowship	% of Fellows (n=38)
1	24
2	29
≥3	47
Gender	% of Respondents (n=205)
Male / Female	67 / 33
Age (mean years 47)	% of Respondents (n=205)
18-39	37
40-64	51
≥65	11
Office or Practice	% of Private Practices (n=41*
Single- / Multi-specialty	82
Solo practice	17
Number of patients a week (mean 47.9)	% of Respondents (n=205)
1-24	29
25-49	36
≥50	34
PATIENTS DEMOGRAPHICS	
Gender	% of Respondents (n=254)
Male / Female	49 / 51
Age (mean 61.8)	% of Respondents (n=254)
40-49	17
50-59	30
60-69	25
≥70	28
Race/Ethnicity	% of Respondents (n=254)
White or Caucasian	90
Black or African American	5
Other	5

### Pulmonologists' Perceived Effectiveness of Nebulized Therapy compared with pMDI/DPI



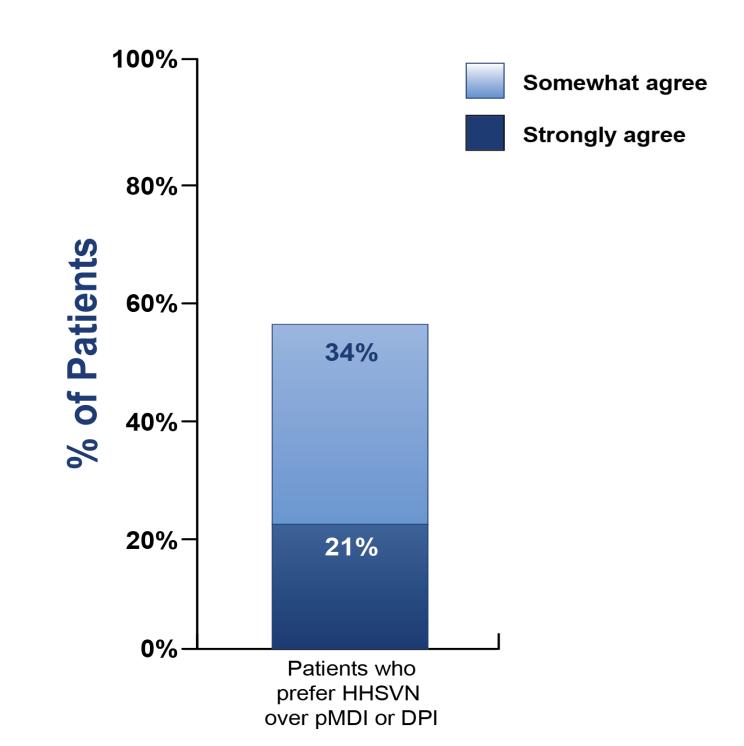
- 63% of pulmonologists believe that SVN therapy is more effective than other inhalation devices for patients with more severe COPD (grade 4 mMRC)
- 70% of pulmonologists stated that SVNs are more effective than pMPI/DPI in the management of acute exacerbations

#### Pulmonologists Recommend Hand-Held Small Volume Nebulizers to Meet Specific Needs



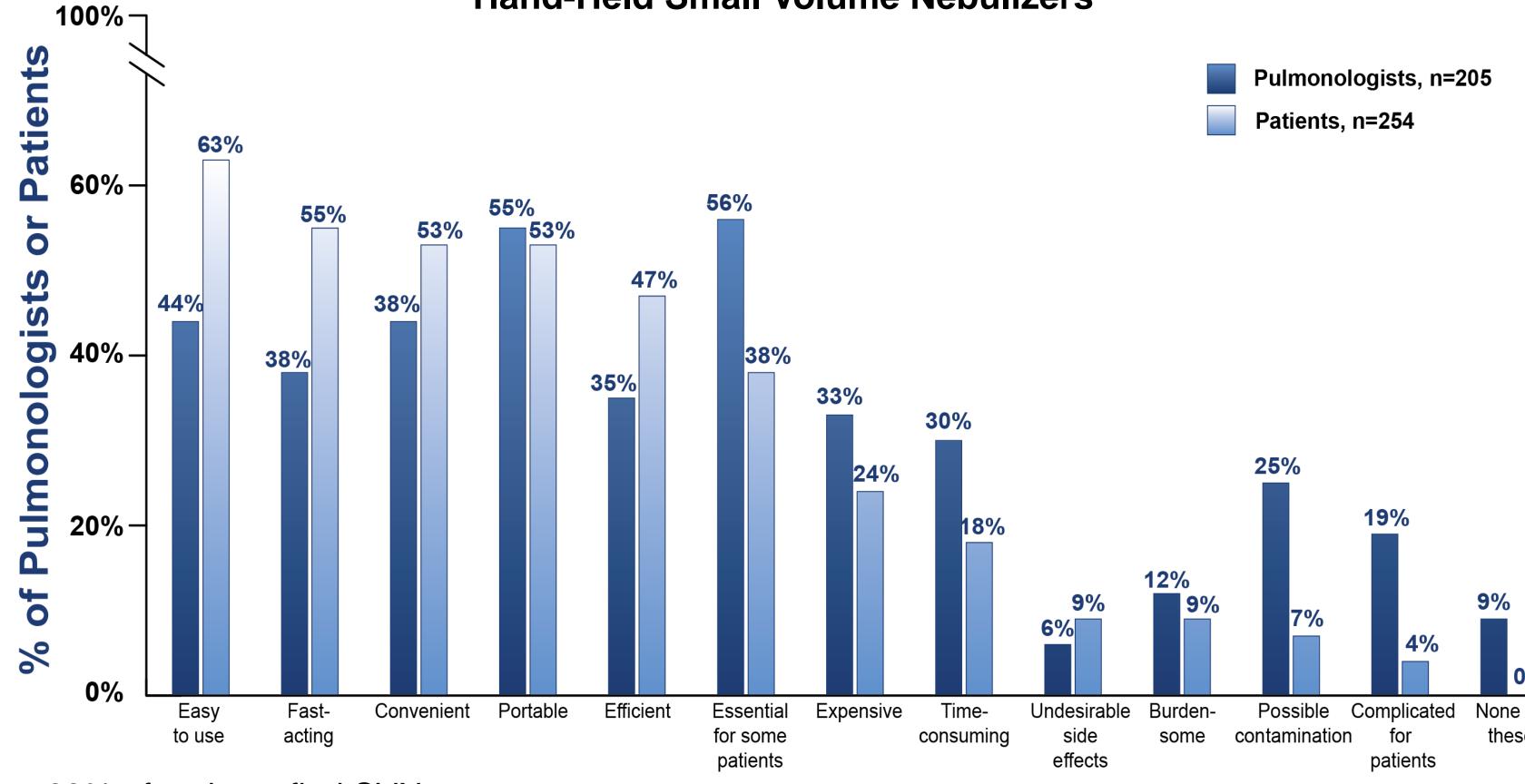
- The vast majority of pulmonologists (95%) agree, or strongly agree that SVNs should be used in COPD patients with poor pMDI/DPI techniques or respiratory muscular weakness
- 38% of pulmonologists believe that most of their patients prefer SVNs compared with alternative delivery devices

# More Than Half of Patients at All Levels of COPD Severity Prefer SVNs Over pMDIs or DPIs



55% of patients with COPD reported a preference for SVNs over pMDI/DPI regardless of mMRC grade

# More Patients Than Pulmonologists Have Favorable Perceptions of the Attributes of Hand-Held Small Volume Nebulizers



- 63% of patients find SVNs easy to use
- 24% have limited concerns about expense
- 18% believe SVNs are too time-consuming

## **KEY POINTS AND OPPORTUNITIES**

- There are differences between pulmonologists and patients in preferences for nebulized therapy compared with alternative delivery systems
- There is a disparity between patients with COPD and pulmonologists regarding perceived effectiveness of nebulized therapy
- A larger proportion of patients prefer SVNs over other devices and have favorable perception on their use and attributes compared to pulmonologists
- There are educational and communication opportunities to guide clinicians regarding selection of optimal delivery system

## **ACKNOWLEDGEMENTS**

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