Investor and Analyst R&D Forum

Developing respiratory drugs to improve health and quality of life

Verona Pharma

May 8, 2019, London

(AIM: VRP) (NASDAQ: VRNA)
www.veronapharma.com

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This presentation contains "forward-looking" statements that are based on the beliefs and assumptions and on information currently available to management of Verona Pharma plc (together with its consolidated subsidiaries, the "Company"). All statements other than statements of historical fact contained in this presentation are forward-looking statements. Forward-looking statements include information concerning the initiation, timing, progress and results of clinical trials of the Company's product candidate, the timing or likelihood of regulatory filings and approvals for any of its product candidates, and estimates regarding the Company's expenses, future revenues and future capital requirements. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other comparable terminology.

Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These risks, uncertainties and other factors include those under "Risk Factors" in the Company's annual report on Form 20-F filed with the Securities and Exchange Commission (the "SEC") on March 19, 2019, and in its other reports filed with the SEC. Forward-looking statements represent the Company's beliefs and assumptions only as of the date of this presentation. Although the Company believes that the expectations reflected in the forward-looking statements are reasonable, it cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, the Company assumes no obligation to publicly update any forward-looking statements for any reason after the date of this presentation, or to conform any of the forward-looking statements to actual results or to changes in its expectations.

This presentation also contains estimates, projections and other information concerning the Company's business and the markets for the Company's product candidate, including data regarding the estimated size of those markets, and the incidence and prevalence of certain medical conditions. Information that is based on estimates, forecasts, projections, market research, or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, the Company obtained this industry, business, market and other data from reports, research surveys, clinical trials studies and similar data prepared by market research firms and other third parties, from industry, medical and general publications, and from government data and similar sources.

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Welcome

Jan-Anders Karlsson, CEO, Verona Pharma

Agenda

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Time	Details
09:00 – 09:15 am	**Welcome** (*Jan-Anders Karlsson, CEO, Verona Pharma*)
09:15 – 09:30 am	**The Patient Perspective, British Lung Foundation** (*Chris Warburton, Patient Advocate*)
09:30 – 10:30 am	**Clinical Expert Perspective** (*chaired by Brian Leaker, Royal Free Hospital*) • *COPD treatment challenges/unmet need (Robert Wise, M.D. 15 min)* • *US payer landscape (15 min)* • *Treatment pipeline (Gerard Criner, M.D. 15 min)* • *Ensifentrine clinical progress (Kathleen Rickard, CMO 15 min)*
10:30 – 11:15 am	**Speaker Panel Q&A**
11:15 – 11:30 am	**Close** (*Jan-Anders Karlsson*)

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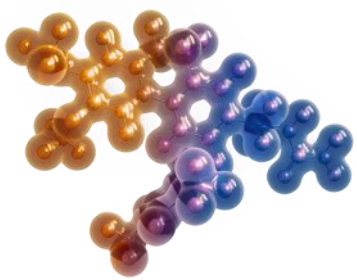
Ensifentrine is a first-in-class candidate for respiratory diseases

Plan to enter Phase 3 in 2020

Inhaled PDE3 and PDE4 inhibitor



Bronchodilator and anti-inflammatory agent
in a single compound

Potential US $1 billion COPD nebulizer market opportunity

COPD: The silent epidemic

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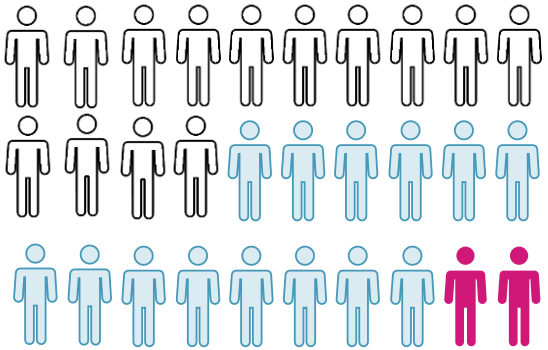
~30 million patients in US alone



~16M
Diagnosed

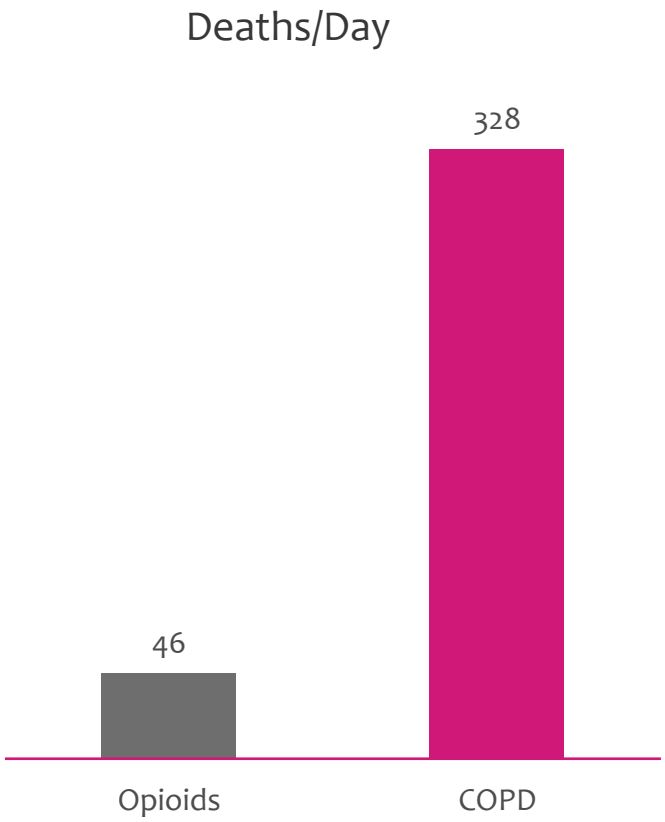
~2M
Severe/
very severe

Cost

~$50 billion/year by 2020

Indirect & direct

3rd leading medical cause of death by disease in US



Sources: COPD Foundation. Sullivan J, et al. Chronic Obstr Pulm Dis. 2018; 5(4): 324-333.

COPD: A significant unmet need

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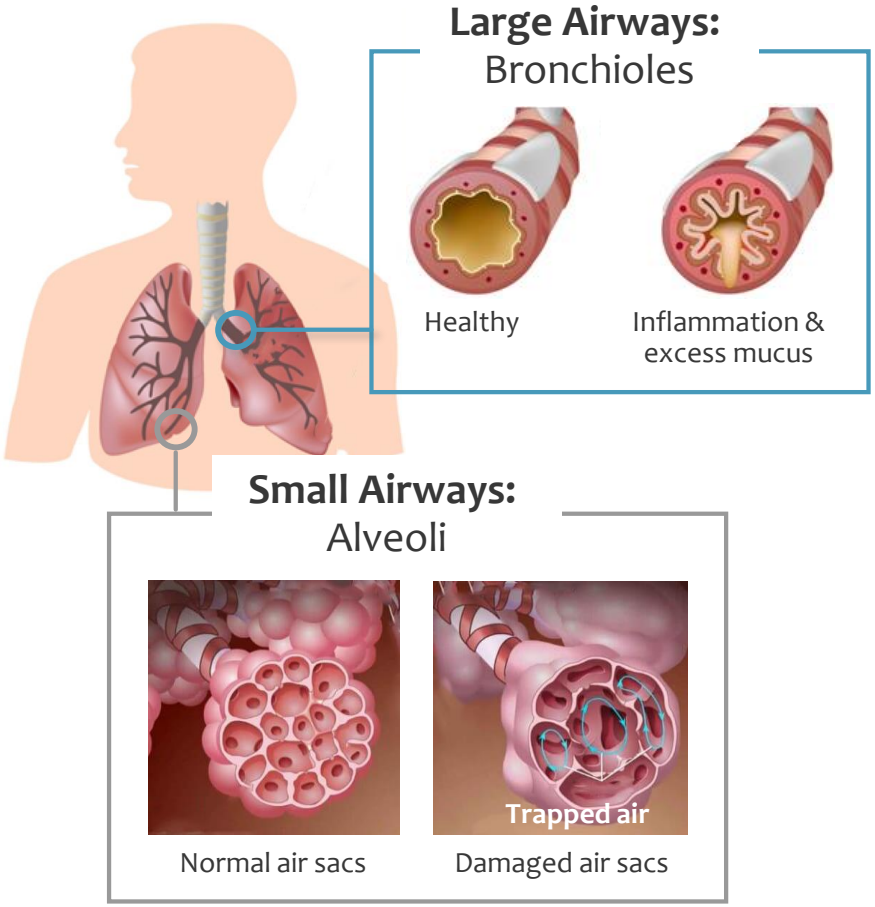

Consequences and symptoms

- Debilitating breathlessness
- Coughing, sputum
- Poor lung function
- Fatigue/struggle with daily tasks
- Exacerbations/flare-ups

Nebulized ensifentrine in COPD: Potential $1 billion market opportunity in US

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6M treated

2M on dual/triple therapy

800,000 symptomatic patients on dual bronchodilator/triple therapy need additional treatment

Current market data	Potential patient population
About 1/3 of moderate to severe patients use nebulizer	>250,000
Avg. Annual WAC Price of existing nebulized COPD drugs	$12,000

Attractive Medicare Part B Reimbursement

Top-prescribing physicians can be reached with targeted specialist salesforce

Source: DRG research Q4:2018. WAC; Wholesale Acquisition Cost.

Ensifentrine lifecycle: Expanding the pipeline over time

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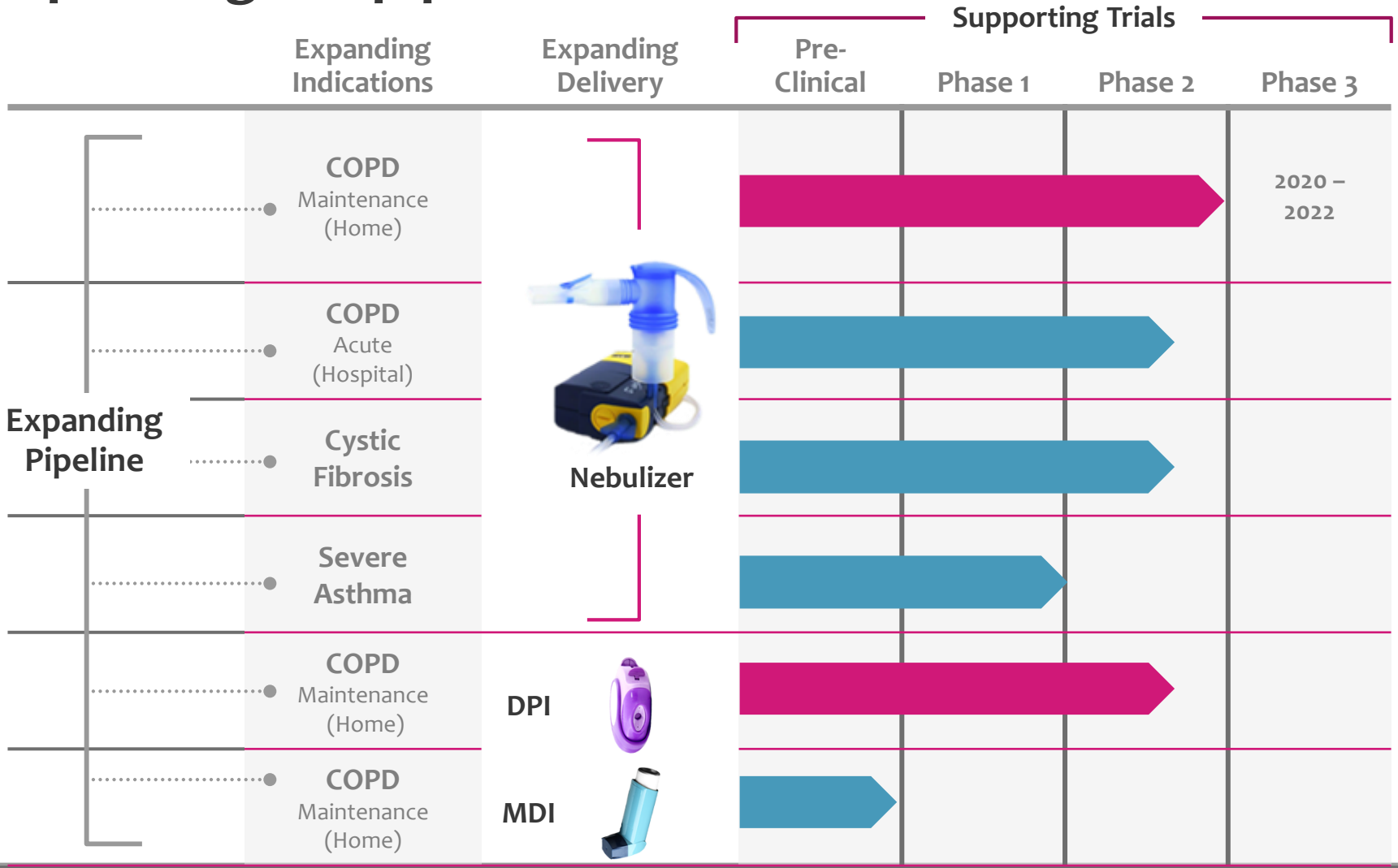

Backed by major healthcare investors

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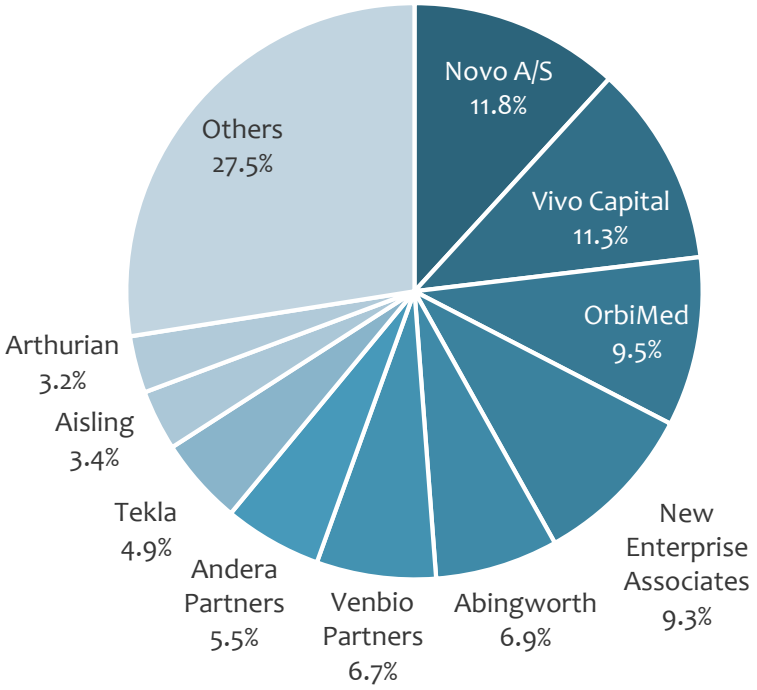
Financial overview March 31, 2019

Cash and cash equivalents	$70.4M[1]
Operating expenses 1Q19	$10.1M[1]
Market cap	$82.3M

Shareholdings



[1]Exchange rate used (US dollars per pound sterling): March, 29, 2019: $1.3032
Cash and cash equivalents comprises cash + cash deposits > 3 months maturity
Cash and equivalents at March 31, 2019 amounted to £54.0M ($70.4M)

Multiple value creation opportunities with ensifentrine

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In COPD

Nebulized formulation in US

- 800,000 symptomatic patients on dual bronchodilator/triple therapy need additional treatment

Nebulized formulation in China

- Prevalence estimated to 70 million COPD patients; potential large market for nebulized drugs as about 90% of drug sales are in the hospital

DPI or MDI formulation for COPD

- Large market, >5 million patients in the US; partnering opportunity

In other indications

Cystic fibrosis

- Potential first anti-inflammatory drug, independent of CF mutation status

Severe Asthma

- Bronchodilator and anti-inflammatory agent, possibly before initiating more restrictive biologics treatments

Nebulizer first NDA filing in US planned 2022

Upside potential: China, DPI/MDI formulations and additional indications

2019 - multiple significant milestones as ensifentrine advances towards Phase 3 in 2020

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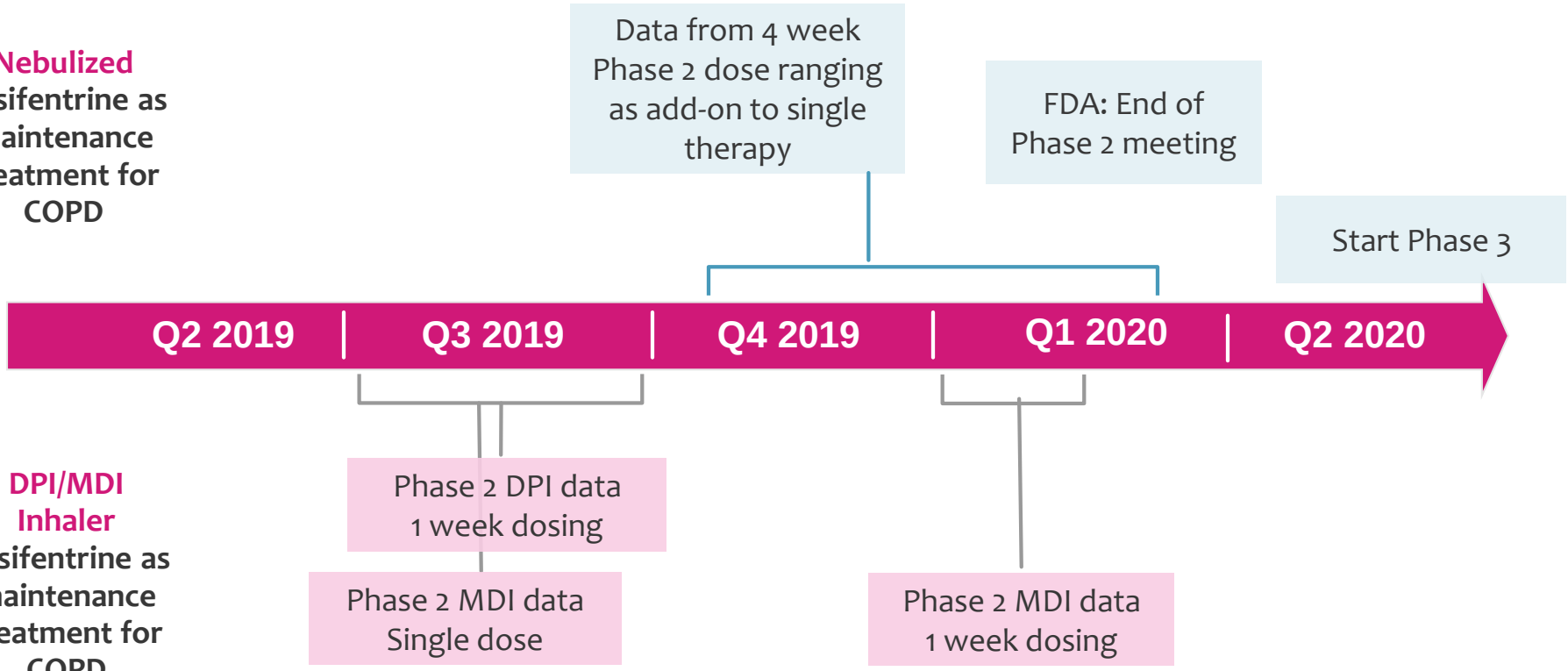
Nebulized ensifentrine as maintenance treatment for COPD

DPI/MDI Inhaler ensifentrine as maintenance treatment for COPD



Simple Phase 3 trial design, similar to Phase 2b studies, to increase likelihood of regulatory success

Ensifentrine: Promising novel treatment for patients with COPD

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Data collected to date indicates:

- ✓ First-in-class PDE3/4 inhibitor with **bronchodilator and anti-inflammatory effects**, and well tolerated
- ✓ Improves symptoms in **moderate to severe,** symptomatic COPD patients on twice daily dosing
- ✓ Improves lung function in patients taking maximum bronchodilator treatment with dual/triple therapy
- ✓ Targeting FDA End of Phase 2 Meeting **H1 2020**
- ✓ Subsequently, **advancing nebulized ensifentrine** into Phase 3 trials in patients symptomatic despite using standard COPD medications

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Patient Perspectives

Symptoms & Disease Progression: How COPD Symptoms Impact Quality of Life

Chris Warburton, Patient Advocate

COPD Patient

COPD

How COPD symptoms
impact the
quality of my life

NB Chris' video is at https://bit.ly/2rjVH7g

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Clinical Expert Perspective

Dr Brian Leaker

Royal Free Hospital

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Heritage of ensifentrine: Dual targeting in COPD

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- Ensifentrine invented by Sir David Jack, former Head of R&D for GlaxoSmithKline and Alexander Oxford, a medicinal chemist
  - Verona Pharma (formerly Rhinopharma Ltd) acquired the rights to intellectual property in 2005
- Sir David Jack recognised for leading a group that developed the following drugs:
  - Beclometasone
  - Salbutamol
  - Salmeterol
  - Fluticasone propionate
- Ensifentrine offers a dual mechanism of action:
  - Bronchodilator and anti-inflammatory properties in one compound
  - Ensifentrine is currently in clinical development for the maintenance treatment of COPD and may also be developed for cystic fibrosis and asthma

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Clinical Expert Perspectives

COPD treatment challenges/ unmet need

Robert Wise

M.D., Professor of Medicine, Division of Pulmonary and Critical Care Medicine at John Hopkins University

COPD causes considerable clinical and economic burden

- More than 16 million people diagnosed with COPD in US; millions more may not have been diagnosed[1]
- In a recent US survey, 83% of patients were classified as symptomatic (GOLD B or D)[2]
- COPD is the third most common medical cause of death in the USA[3]
- In 2010, the cost of COPD in the USA was projected to be approximately US$50 billion[2]
  - $20 billion in indirect costs
  - $30 billion in direct health care expenditures
- These costs can be expected to continue to rise with this progressive disease[3]
- Hospital stays account for the majority of these costs[3]

[1]NHLBI COPD National Action Plan. Available at: https://www.nhlbi.nih.gov/health-topics/education-and-awareness/COPD-national-action-plancopd.html
[2]Ding B, et al. Int J COPD 2018;13:927-936.
[3]Guarascio AJ et al. Clinicoecon Outcomes Res 2013;5:235-245.

GOLD, Global initiative for chronic Obstructive Lung Disease

Unmet needs in COPD

- Symptoms
- Impaired physical activity, airflow limitation
- Recurrent exacerbations
- Difficulty with handheld inhalers

Unmet needs in COPD

- Symptoms
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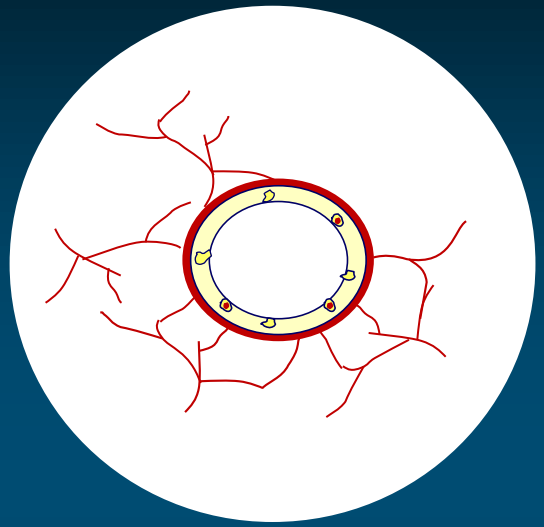
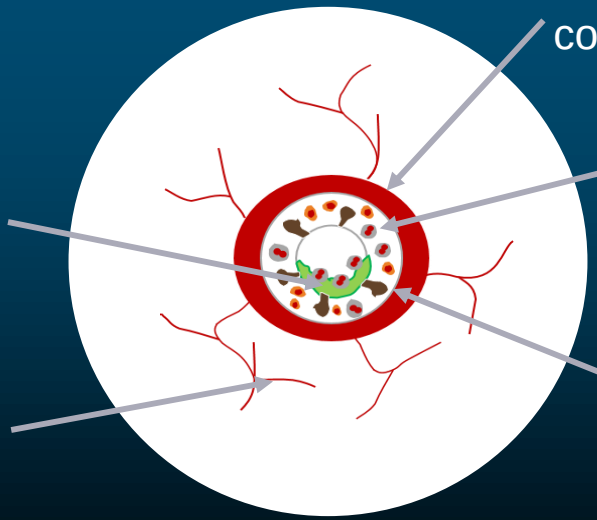
Symptoms of COPD: Breathlessness, cough, sputum

HEALTHY



COPD



GOLD 2019. Available at http://www.goldcopd.com/.

Multiple symptoms of COPD have a real impact on patient well-being

SYMPTOMS[1–4]	IMPACT ON WELL-BEING[1–5]
Shortness of breath	Activity/exercise limitation
Cough	Anxiety and depression
Wheezing	Apprehension about future events
Chest tightness	Lack of confidence about steps to take action
Sputum production	Risk of increasing social isolation
Worse in morning	Loss of independence
Fatigue	

COPD, chronic obstructive pulmonary disease.

[1]GOLD 2019. Available at http://www.goldcopd.com/.
[2]O'Donnell DE. Eur Respir Rev 2006;15:37-41.
[3]Rennard. Eur Respir J 2002;20:799-805.
[4]Barnett M. J Clin Nurs 2005;14:805-12.
[5]Cleland JA. Fam Pract 2007; 24:217–23.

Patients avoid shortness of breath by becoming less active, leading to de-conditioning/ breathlessness downward spiral

Shortness of breath with activities

Patient becomes more sedentary to avoid activity producing shortness of breath (decreases activity)[1]

De-conditioning aggravates shortness of breath; patients adjust by reducing activity further[1]

Figure adapted from Reardon JZ. Am J Med 2006.
[1]ZuWallack R. COPD 2007;4(3):293-7.

Case study

- 67-year-old male; 20 cigarettes a day for 40 years
- Diagnosed with COPD after complaining of breathlessness during routine activities such as walking; “smokers cough in the mornings”

- Some improvement with BD challenge:
  - Pre-: FEV1 = 1.60 L, FVC = 2.60 L, FEV1 % predicted = 60%; CAT score 28
  - Post: FEV1 = 1.64 L, FVC = 2.65 L, FEV1 % predicted = 63%

- Prescribed tiotropium once daily with little benefit
  - FEV1 increased to 1.68 L; CAT score 24 after 8 weeks

- Prescribed tiotropium/olodaterol; still uncontrolled
  - FEV1 increased to 1.71 L; CAT score 22

BD, bronchodilator; FEV_1, forced expiratory volume in 1 second; FVC, forced vital capacity; CAT, COPD Assessment Test

COPD maintenance treatments

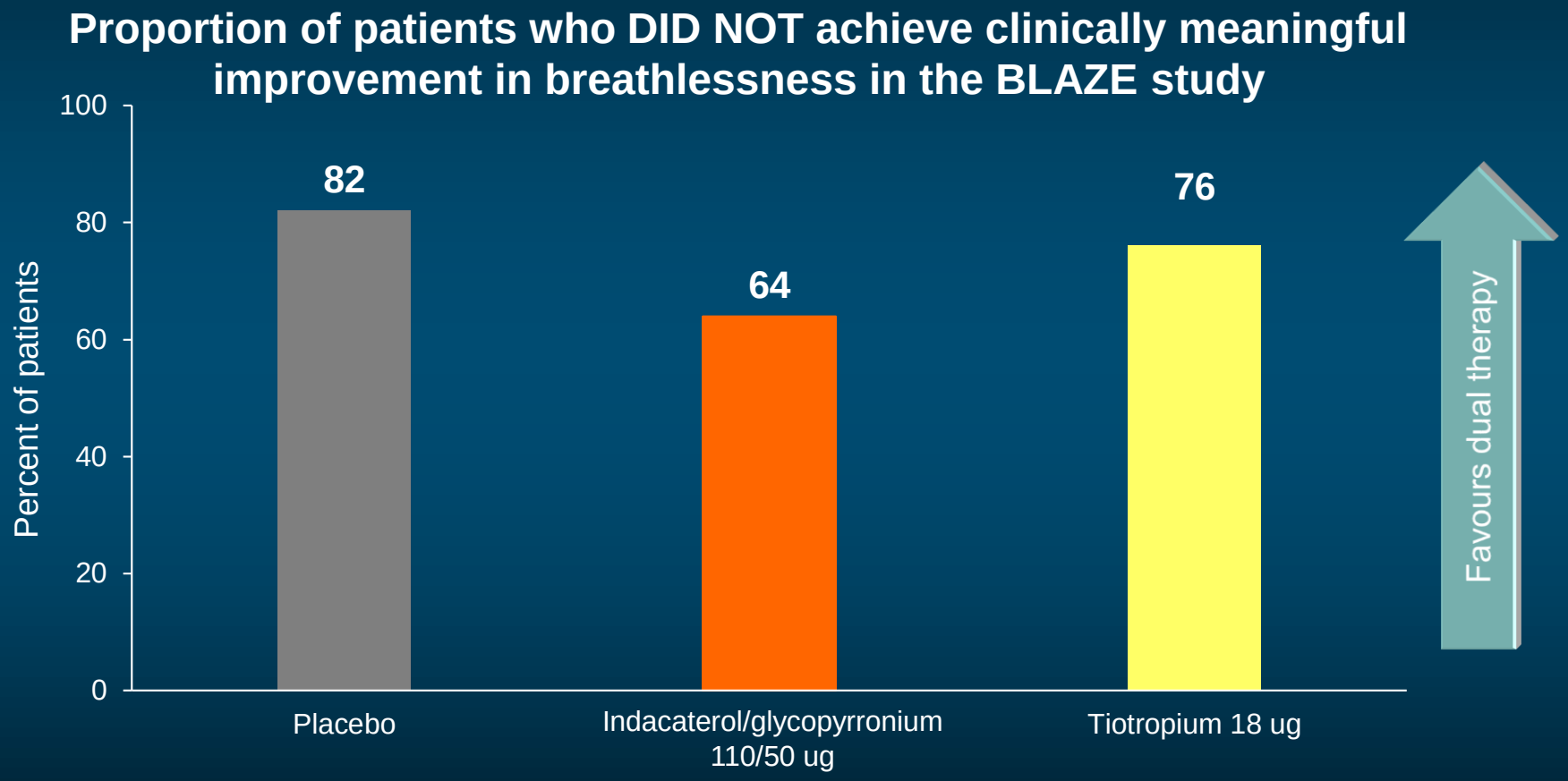
- Long-acting beta agonists (LABA)
- Long-acting anti-muscarinics (LAMA)
- Inhaled corticosteroids (ICS)
- Oral PDE4 inhibitors

Guidelines for COPD maintenance therapy in symptomatic patients

- Symptomatic, low exacerbation risk
  - Long-acting bronchodilator ➔ 2 long-acting bronchodilators
- Symptomatic, high exacerbation risk
  - 2 long-acting bronchodilators ➔ add anti-inflammatory ➔ add PDE4i, macrolide antibiotic

GOLD 2019. Available at http://www.goldcopd.com/.

A high proportion of patients on single therapy (LAMA) are symptomatic; after moving to dual therapy (LAMA/LABA) many remain symptomatic



Patients who did not achieve clinically meaningful improvement in breathlessness were those who did not have a ≤1-point improvement in TDI total score (%). A 1-unit change in TDI is considered the minimal clinically important difference or MCID, in breathlessness.

TDI, Transition Dyspnoea Index

Adapted from Mahler et al. Eur Respir J 2013;43:1599-1609.

Unmet needs in COPD

- Symptoms
- Impaired physical activity, airflow limitation
- Recurrent exacerbations
- Difficulty with handheld inhalers

COPD maintenance treatments

- Long-acting beta agonists (LABA)
- Long-acting anti-muscarinics (LAMA)
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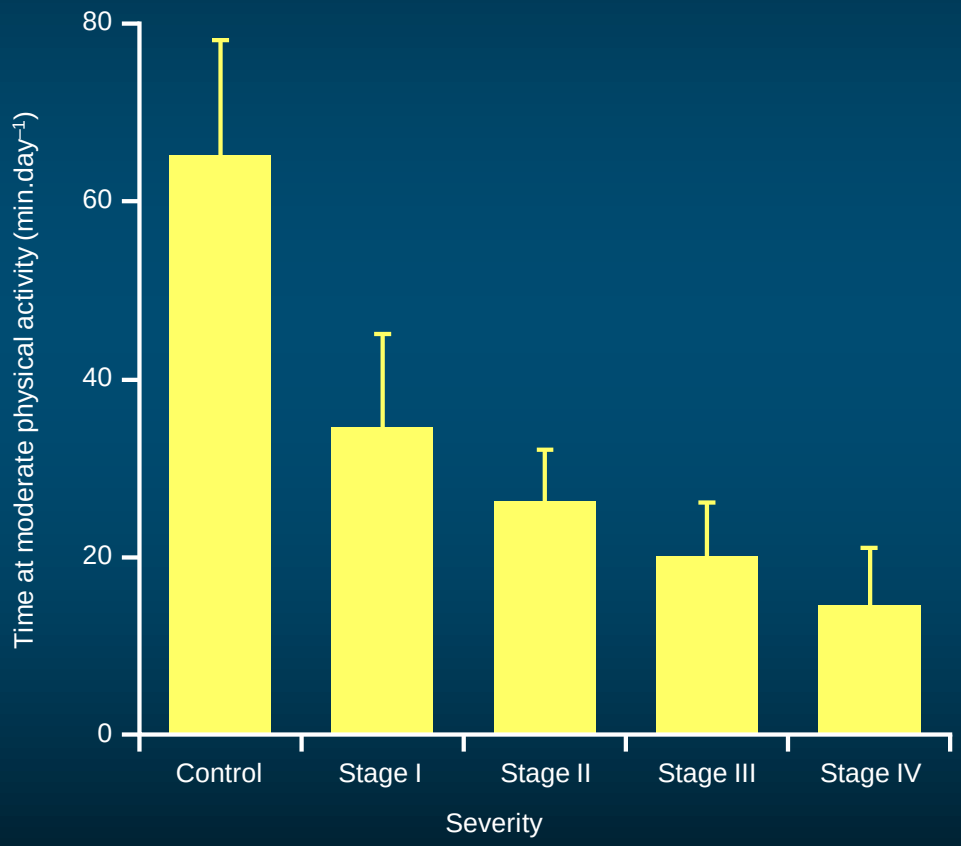
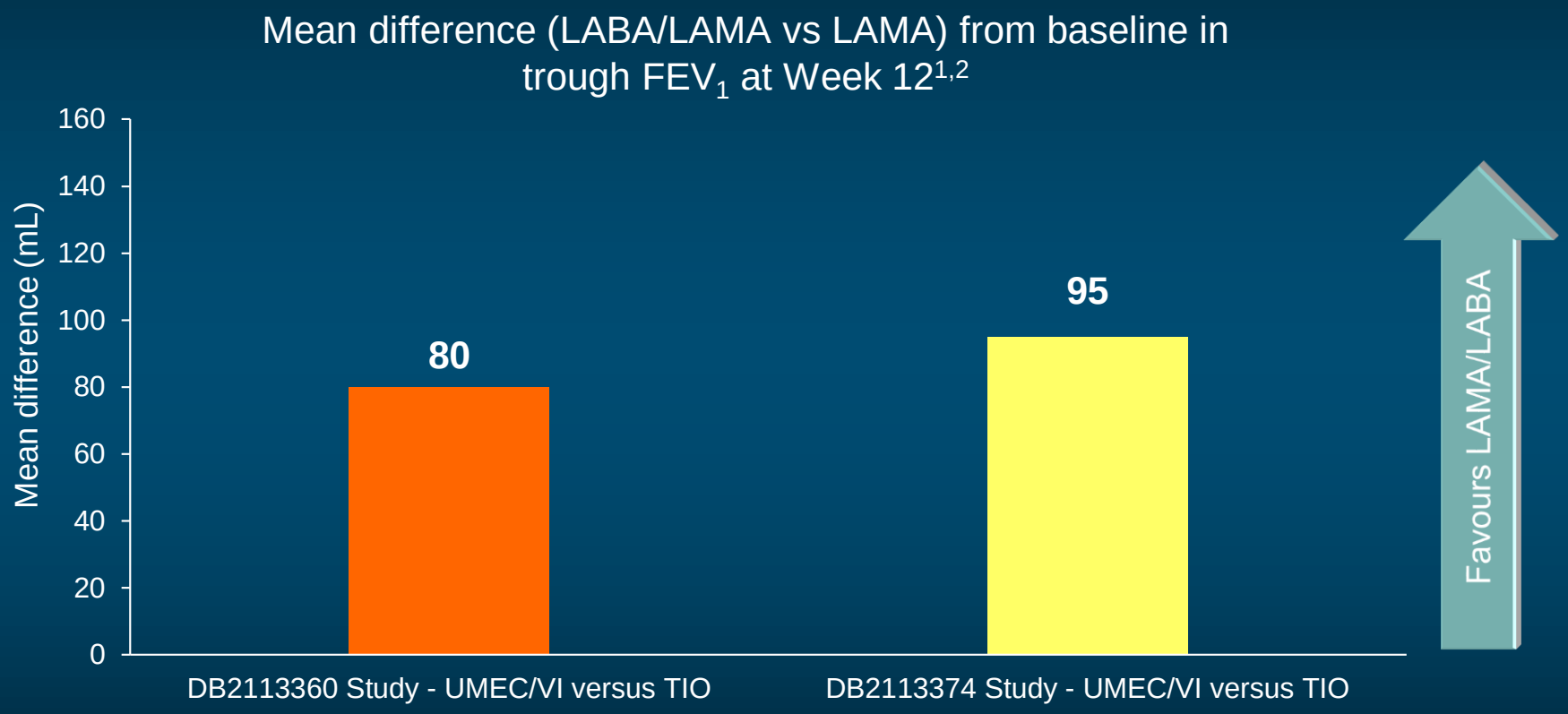
Physical activity reduces with increasing COPD severity, which may lead to hospitalizations or death

Steps per day reduce with worsening lung function[1]



[1]Adapted from Watz H. Eur Respir J 2009;33(2):262-72.
[2]Garcia-Aymerich J, et al. Thorax. 2006;61:772-778.

Effect on lung function: Incremental benefit with LAMA/LABA over LAMA



LAMA/LABA versus LAMA (TIO) at 12 weeks. Dotted line shows the weighted mean difference in a random effects model across 6 studies included in a meta-analysis. FEV_1 forced expiratory volume in 1 s, TIO tiotropium.

[1]Han MK, et al. npj Primary Care Resp Med. 2018;28:32.
[2]Decramer M, et al. Lancet Resp Med 2014;2(6):472-486.

Unmet needs in COPD

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COPD maintenance treatments

- Long-acting beta agonists (LABA)
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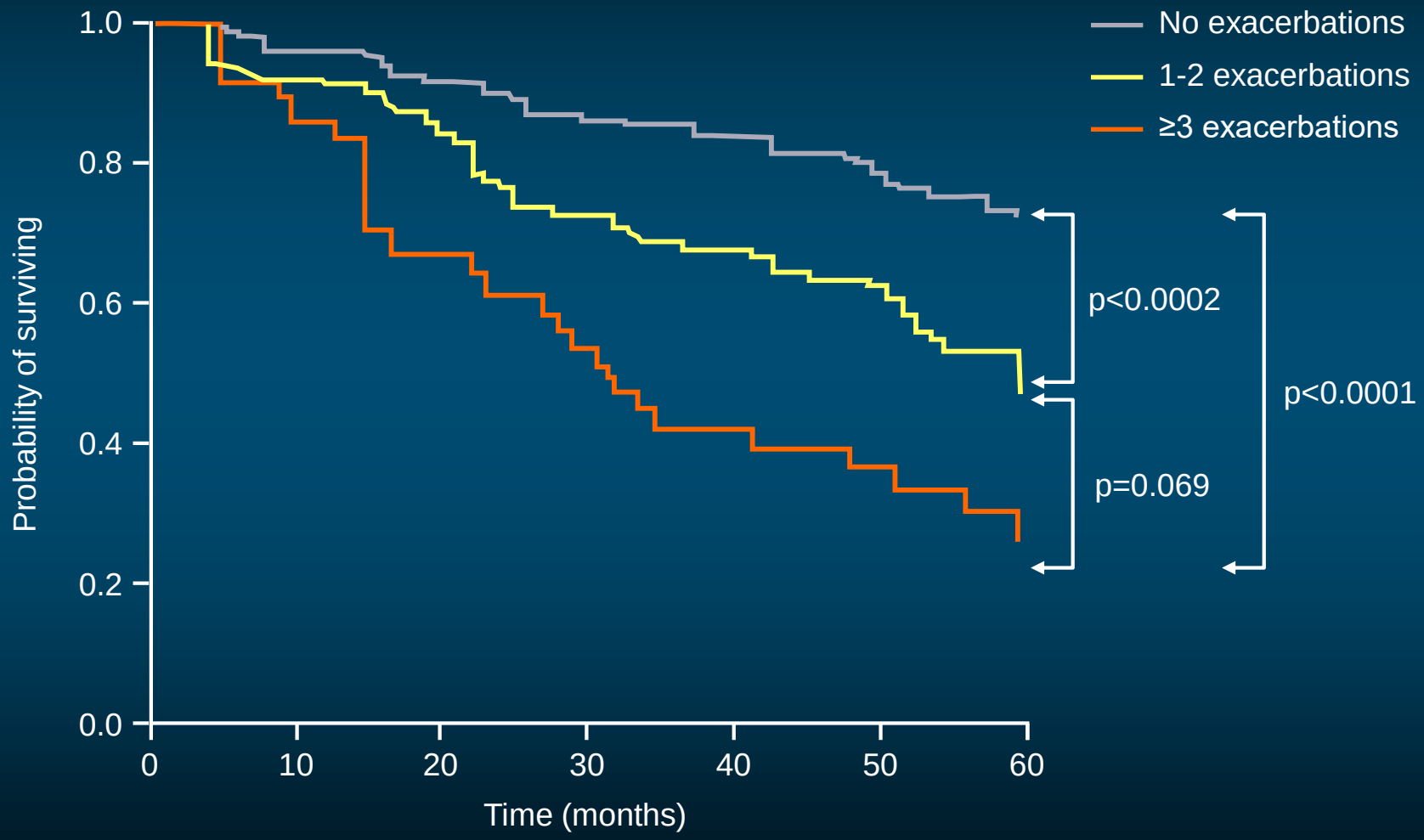
Burden of exacerbations

- Mild and moderate exacerbations are common in COPD

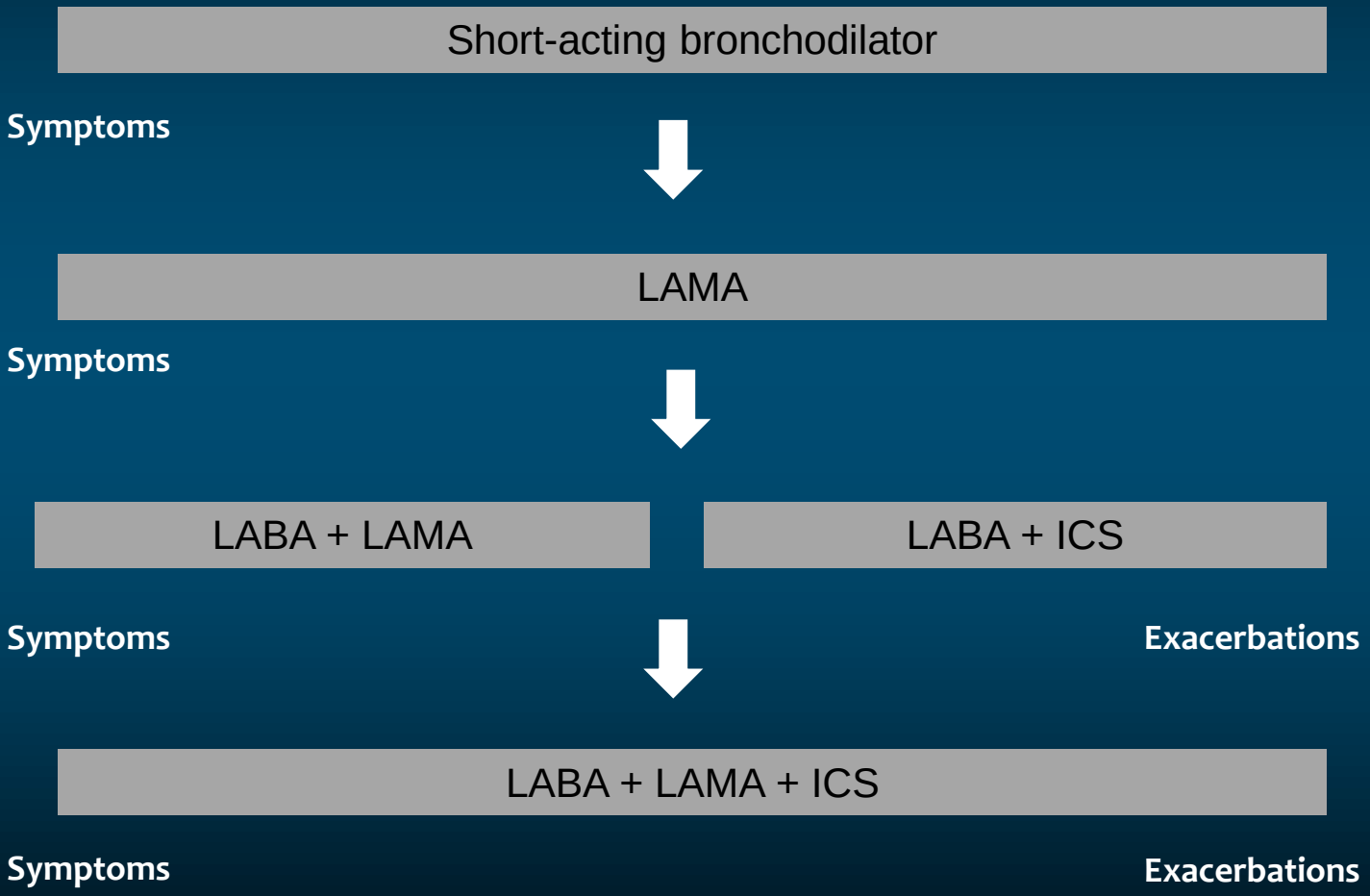
- Severe exacerbations (requiring hospitalization) are associated with:
  - A high mortality rate
  - A decline in lung function that may be prolonged and not recoverable
  - Disease progression
  - High costs – hospitalized exacerbations account for the majority of the costs associated with COPD

Mortality increases with the frequency of severe exacerbations

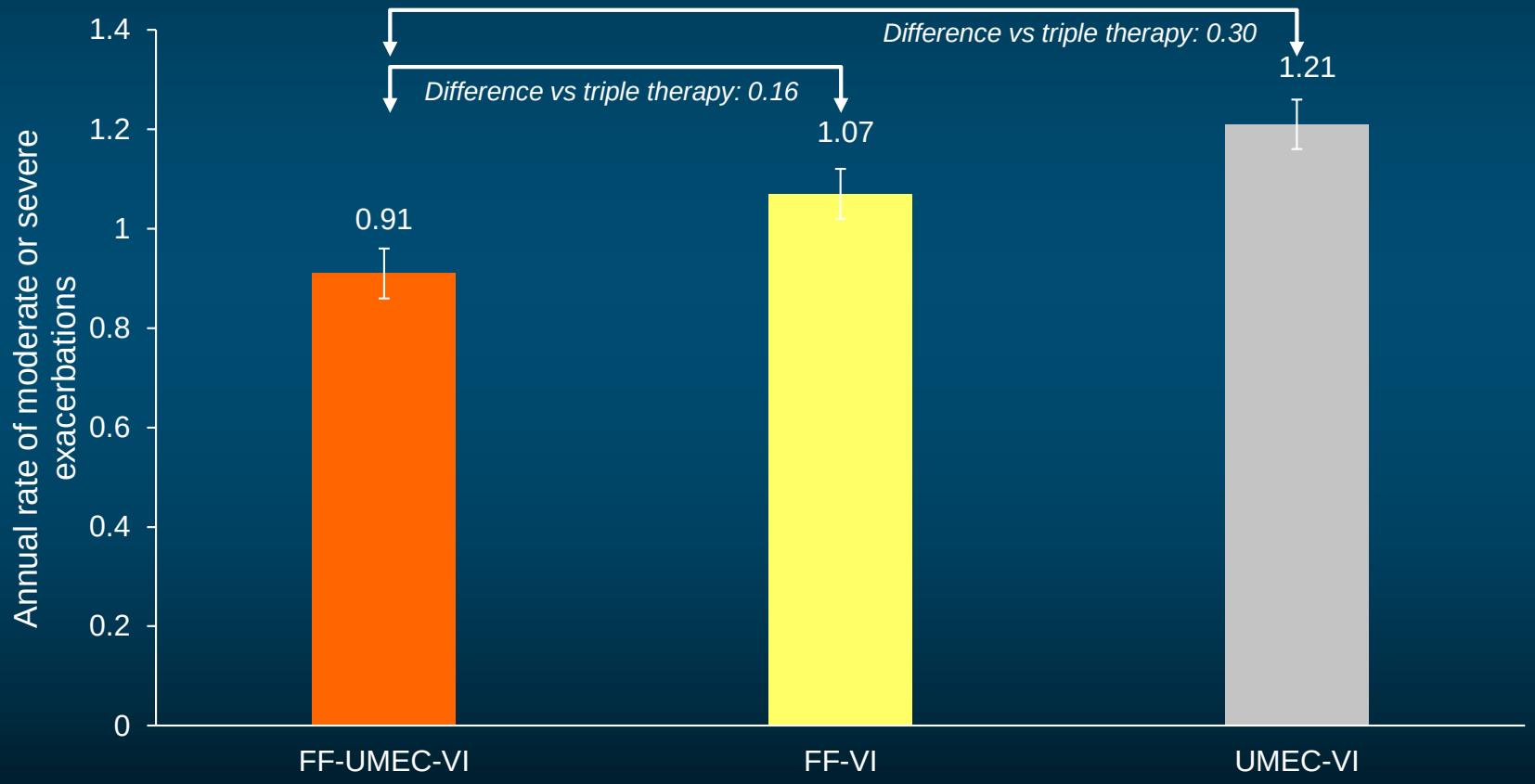


Soler-Cataluna JJ, et al. Thorax. 2005;60:925-931.

Therapy flow chart



Limited incremental benefit of triple vs. dual therapy on the rate of moderate or severe exacerbations



Lipson DA, et al. NEJM 2018;378:1671-1680.

Effect of PDE-4 inhibitors on COPD management goals

- Statistically significant improvements in lung function; however, change was below what is usually considered a minimum clinically important difference
- Effect on COPD symptoms was small, regardless of how measured
- Individuals were 22% less likely to have an exacerbation; overall rate of exacerbations was reduced by 13%

Chong J, et al. Cochrane Database of Systematic Reviews 2017.

Safety of medications for the prevention of COPD exacerbations

- ICS
  - Pneumonia
  - Bones, Skin, Eyes
- Roflumilast
  - Nausea, Diarrhea, Weight Loss

Unmet needs in COPD

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COPD maintenance treatments

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Potential reasons for using nebulized medications in COPD

- Inhaler device handling errors are common:
  - ~15-40% among elderly patients in primary care[1]
  - 81-85% in hospitalized patients[2]

- Critical errors using conventional inhalers in spite of adequate training
  - Inadequate inspiratory flow (ability to breath in)
  - Poor inspiratory timing
  - Inability to activate inhaler (by breath or by hand)

- Medical conditions limiting inhaler use
  - Mental impairment or cognitive dysfunction
  - Neuromuscular diseases
  - Arthritis
  - Visual impairment

[1]Molimard M, et al. *J Aerosol Med.* 2003;16:249-254.
[2]Press VG, et al. J Gen Intern Med. 2011;26(6):635-642.

Nebulized formulations are often prescribed for US moderate to severe patients

- Current adoption of nebulized therapy by COPD severity
  - Mild: 14%
  - Moderate: 27%
  - Severe: 37%

- Physicians also indicate a roughly even split between prescription of nebulized treatments for chronic use (54% patients) vs. temporary use post-discharge (46%)

What do we need?

Maximum bronchodilation is key to improving symptoms and reducing exacerbation frequency

- Additional options to control symptoms in treated patients
- An inhaled bronchodilator that has bronchodilating efficacy in COPD patients already on maintenance therapy
- An inhaled bronchodilator that can be delivered by nebulizer suitable for all COPD patients
- An anti-inflammatory with an alternative mechanism of action to inhaled corticosteroids

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Clinical Expert Perspectives

COPD treatment pipeline including ensifentrine

Gerard J Criner, MD

Professor and Founding Chair, Department of Thoracic Medicine and Surgery, Lewis Katz School of Medicine at Temple University – Philadelphia, Pa

Airways obstruction in COPD: Targets for treatment

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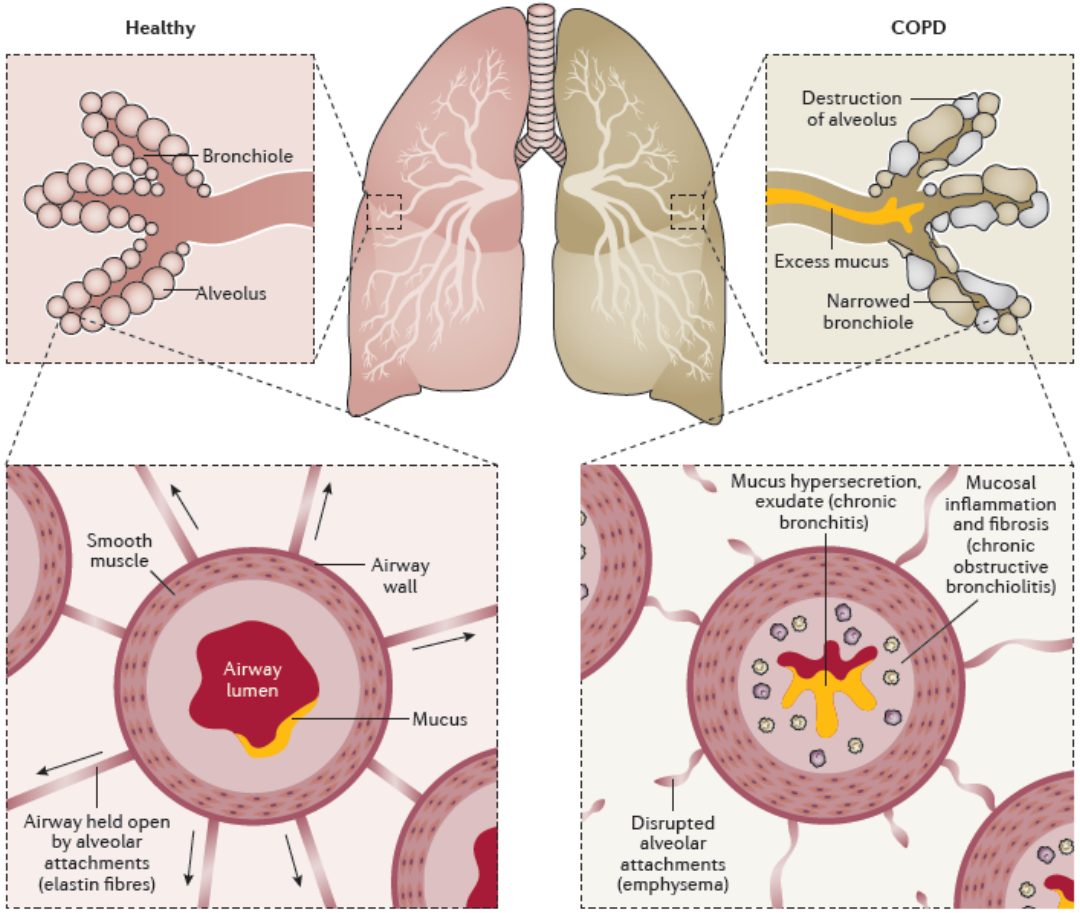

Barnes PJ, et al. Nat Rev Dis Primers 2015;1:15076.

Airways obstruction in COPD: Targets for treatment

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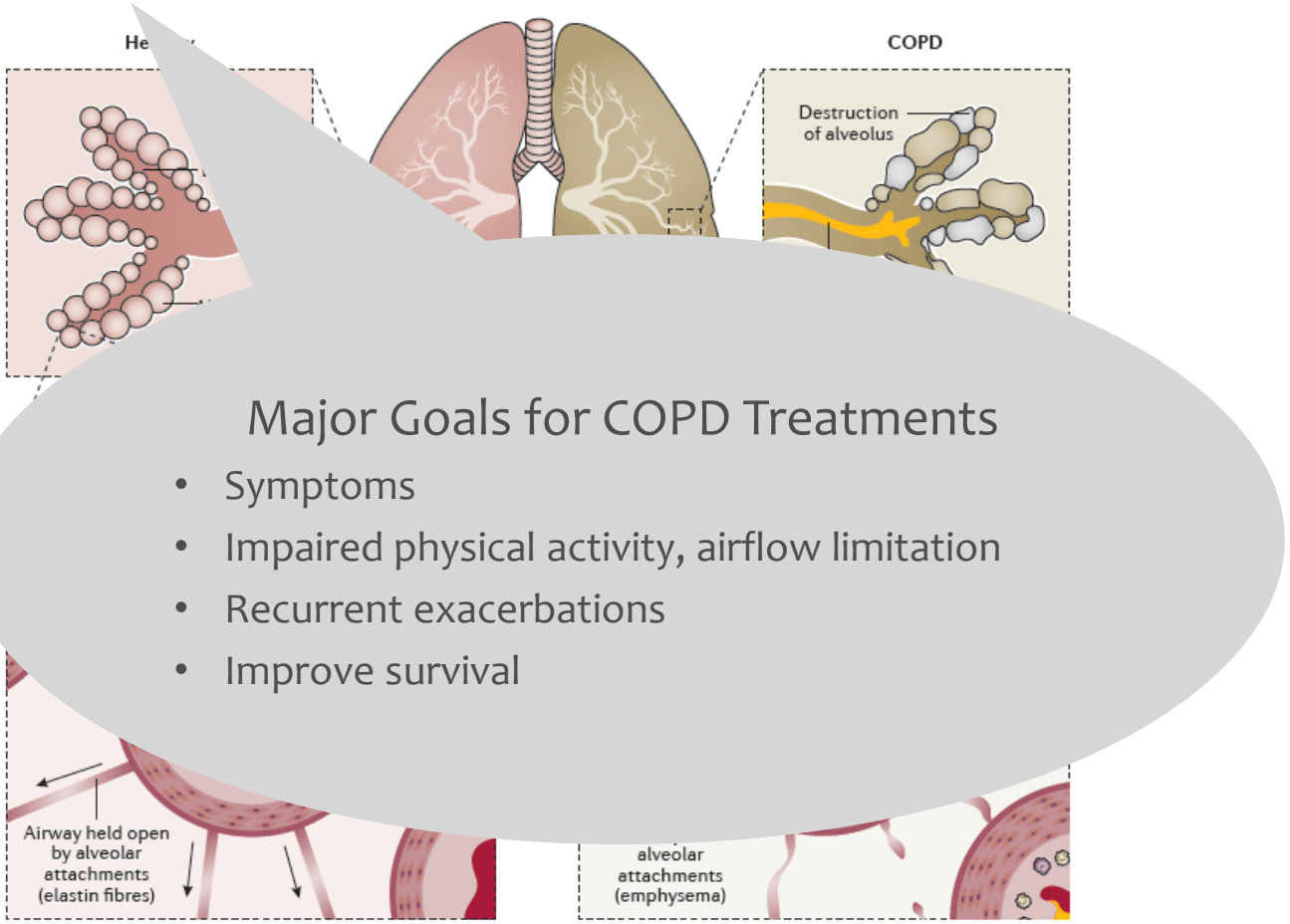

Major Goals for COPD Treatments

- Symptoms
- Impaired physical activity, airflow limitation
- Recurrent exacerbations
- Improve survival

Barnes PJ, et al. Nat Rev Dis Primers 2015;1:15076.

Overview of maintenance therapy for COPD

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Category	Class	Symptoms	Exacerbation prevention
Bronchodilators	Long-acting β_2-agonists (LABAs)	++++	++
	Long-acting muscarinic antagonists (LAMAs)		
	LAMA/LABA		
Bronchodilator/ anti-inflammatory combinations	LABA/inhaled corticosteroids (LABA/ICS)	++++	++++
	LAMA/LABA/ICS		
Anti-inflammatories	ICS alone	++	++++
	PDE-4 inhibitors		
	Targeted anti-inflammatories		
Other	Smoking cessation	++	+++
	Mucolytics	++	+
	Vaccinations	+	+++
	Non-pharmacological devices	NA	NA

Compelling need for therapy with new mode of action for COPD

…but few such drugs in development for COPD, and high rate of failure*

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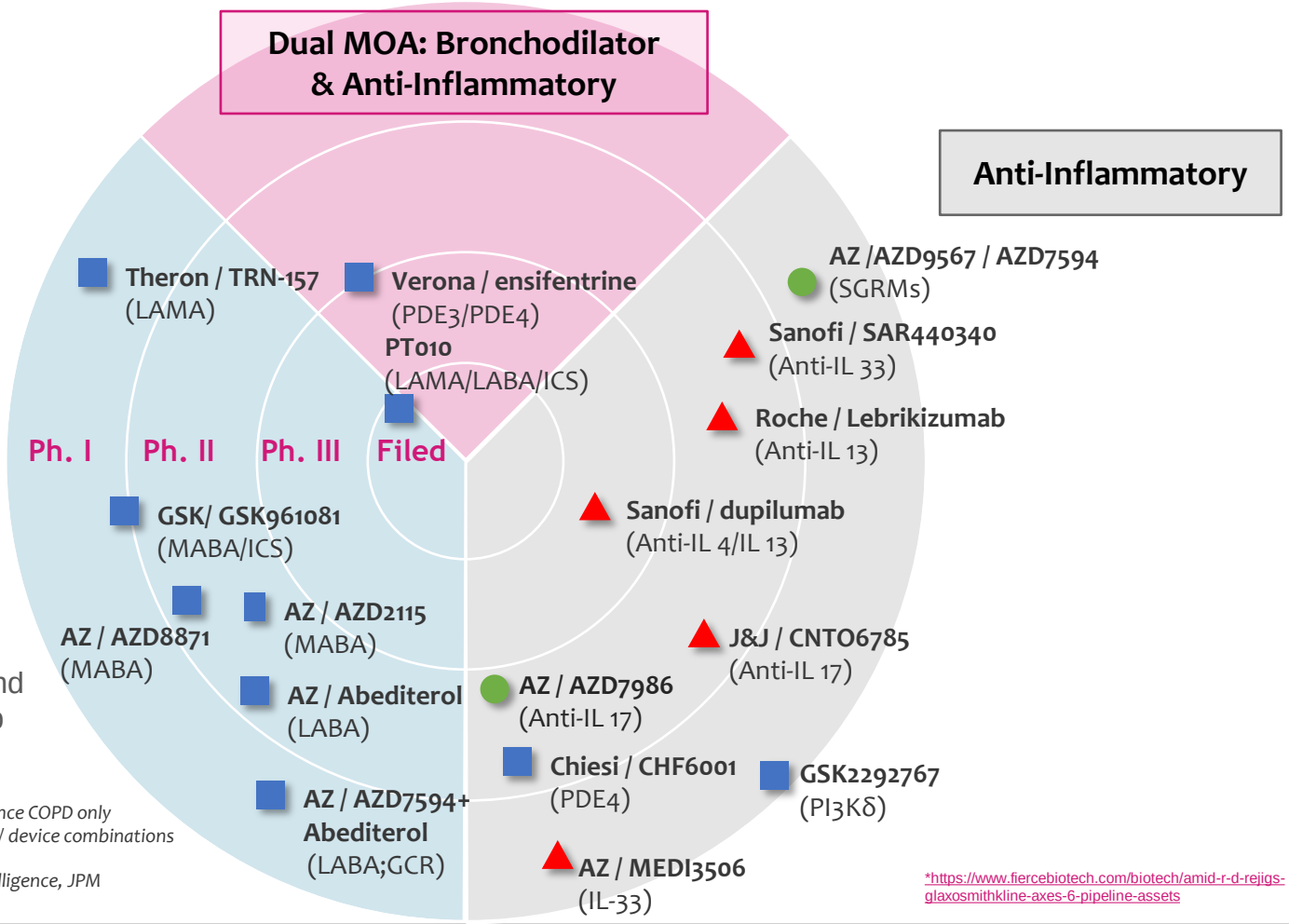

Mode of Delivery:

- Oral
- Inhalation
- Injectable

*GSK and AZ failures of mepolizumab and benralizumab in COPD, and termination of nemiralisib Ph2 trial by GSK

Includes NMEs in development for maintenance COPD only (excludes generic forms and reformulations / device combinations of existing compounds
Sources: EvaluatePharma, STRH market intelligence, JPM Conference presentations Jan 2019

*https://www.fiercebiotech.com/biotech/amid-r-d-rejigs-glaxosmithkline-axes-6-pipeline-assets

Bronchodilators in development for COPD

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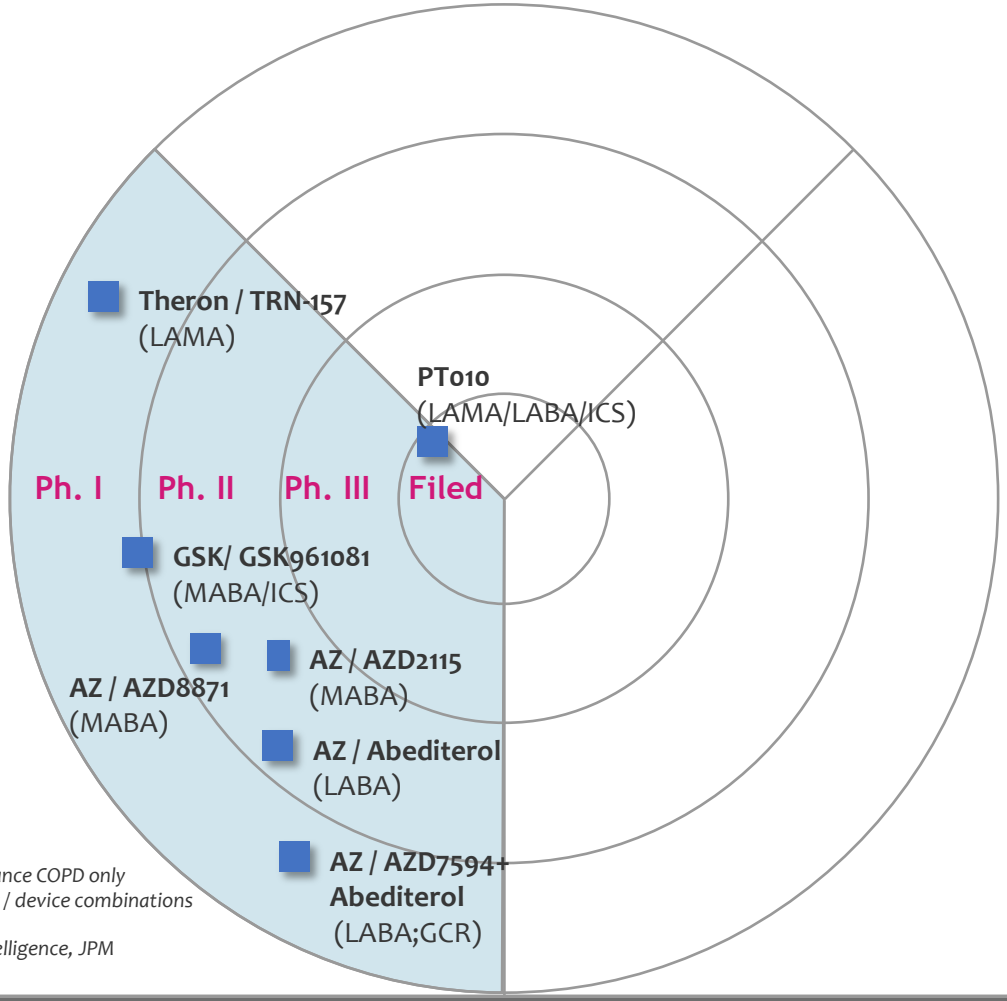
Bronchodilator

Mode of Delivery:

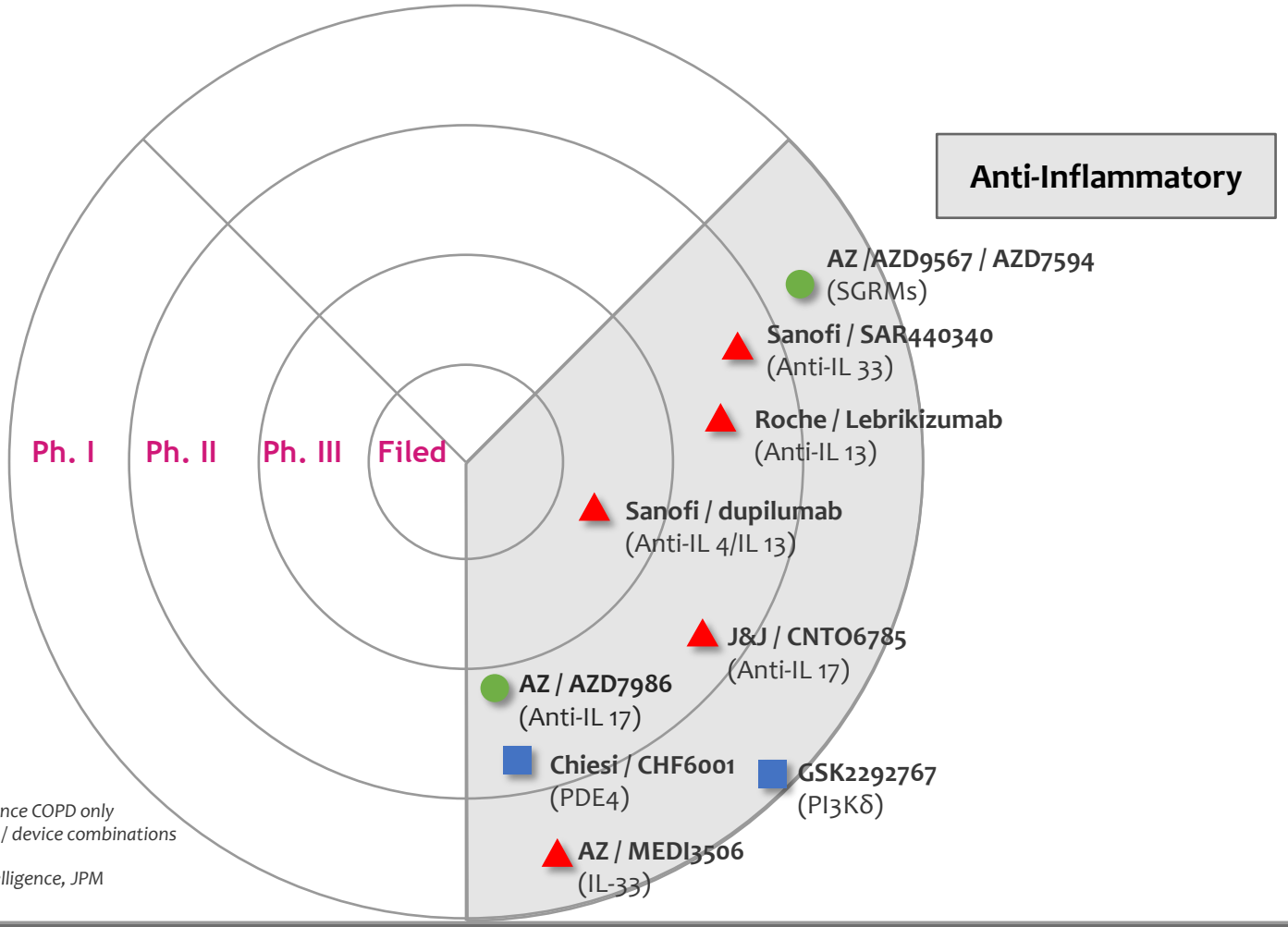
- Oral
- Inhalation
- Injectable



Includes NMEs in development for maintenance COPD only (excludes generic forms and reformulations / device combinations of existing compounds
Sources: EvaluatePharma, STRH market intelligence, JPM Conference presentations Jan 2019

Anti-inflammatories in development for COPD

Verona Pharma



Mode of Delivery:

- Oral
- Inhalation
- Injectable

Includes NMEs in development for maintenance COPD only (excludes generic forms and reformulations / device combinations of existing compounds
Sources: EvaluatePharma, STRH market intelligence, JPM Conference presentations Jan 2019

Interleukin-directed therapy in COPD: Still looking to demonstrate proof of concept

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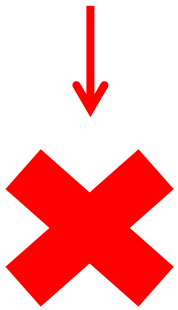
IL-5	IL-4/IL 13	IL-13
• **Mepolizumab:** No reduction in exacerbation rate when added to triple therapy[1] • **Benralizumab:** No reduction in exacerbation rate when added to dual or triple therapy[2]	• **Dupilumab**	• **Lebrikizumab:** A study to evaluate safety and efficacy of lebrikizumab in COPD has been completed but results are not yet published



Demonstrated efficacy in patients with moderate to severe and severe asthma[3,4]

Phase 3 trial planned for dupilumab in patients with COPD

1. Pavord I, et al. NEJM 2017;377:1613-1629. 2. Brightling CE, et al. Lancet Respir Med 2014;2:891-901. 3. Castro M, et al. NEJM 2018;378:2486-2496. 4. Rabe KF, et al. NEJM 2018;378:2475-2485.

p38 MAP kinase inhibitor therapy in COPD and other anti-inflammatory therapies

Verona Pharma

- GSK performed a study of **losmapimod** in 602 patients: No improvement in exercise tolerance or lung function, despite being well tolerated
- AZ recently reported at ERS 2018 that **AZD7624** had a greater effect than budesonide on cytokine production from BECs
- **SK2269557** (PI3Kδ inhibitor): In development for COPD
- **CHF6333** (neutrophil elastase inhibitor): Phase 1 safety, tolerability and pharmacokinetics of single and repeat doses in 72 healthy males (NCT03056326)
- **Emeramide** (antioxidant and metal chelator): Pilot study to explore safety of emeramide in COPD patients (NCT03123692)

Clinicaltrials.gov. Accessed Oct 2018.

Only one dual bronchodilator/anti-inflammatory in development for COPD

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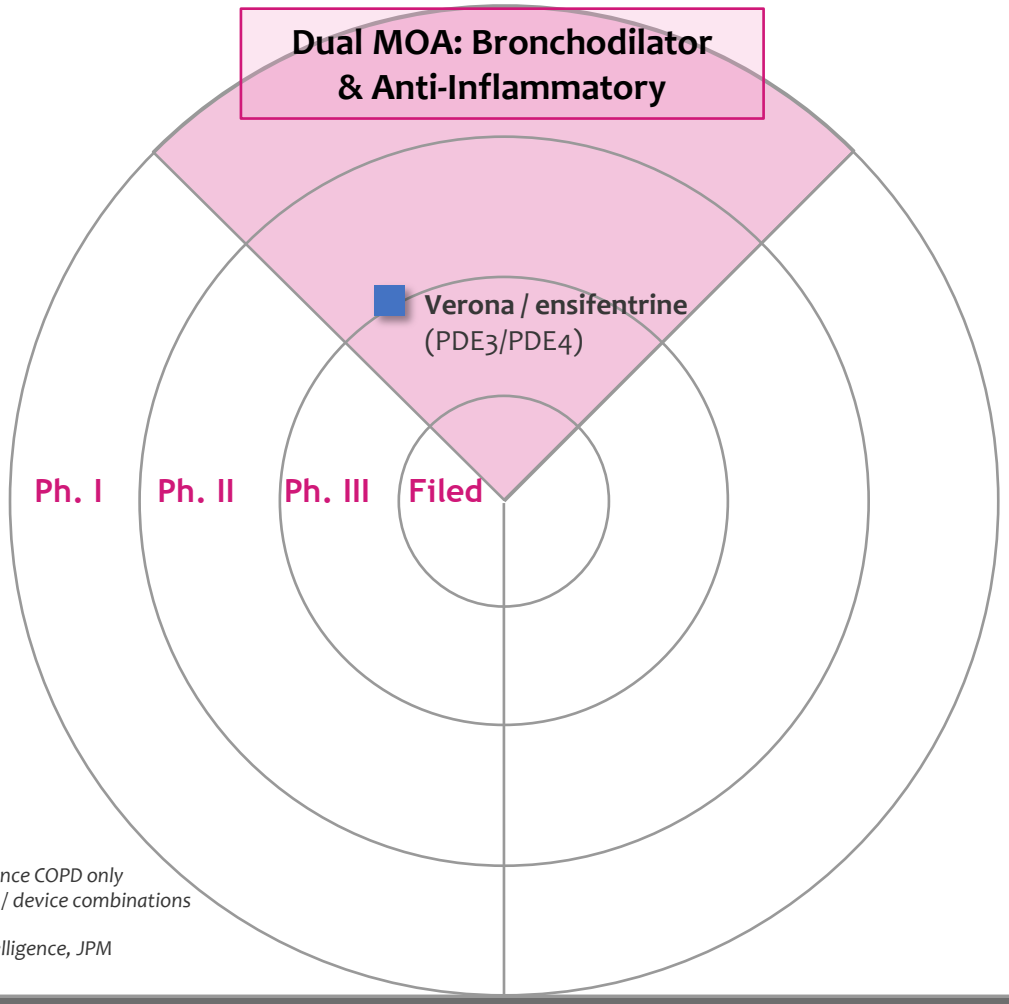

Mode of Delivery:

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Sources: EvaluatePharma, STRH market intelligence, JPM Conference presentations Jan 2019

Ensifentrine promising clinical trial results

Verona Pharma

- Verona Pharma announced ensifentrine demonstrated additional bronchodilation in moderate to severe COPD patients already receiving maximum bronchodilator treatment with dual therapy (LAMA/LABA).

- Ensifentrine:
  - First-in-class, inhaled, dual inhibitor of the enzymes phosphodiesterase 3 and 4
  - Designed to have bronchodilator as well as anti-inflammatory properties
  - Ensifentrine is in Phase 2b clinical development for the maintenance treatment of COPD and may be developed for cystic fibrosis and asthma

Verona press release. 12 September 2018. Accessed at: http://www.veronapharma.com/blog/verona-pharma-to-present-expanded-dataset-from-RPL554-phase-2b-clinical-trial-in-copd-at-european-respiratory-society-internatio/

Verona Pharma

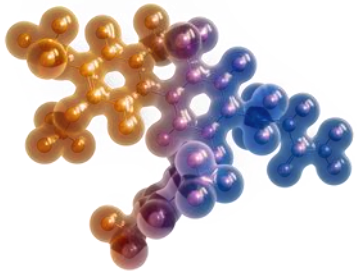
Ensifentrine clinical progress

Kathleen Rickard, CMO

Ensifentrine is a first-in-class candidate for respiratory diseases

Plan to enter Phase 3 in 2020

Inhaled PDE3 and PDE4 inhibitor



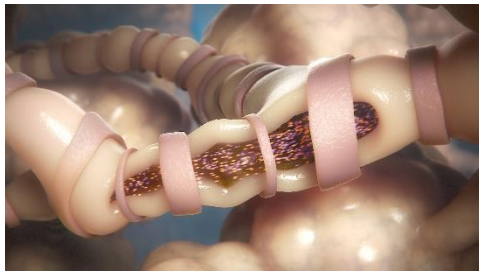
Bronchodilator and anti-inflammatory agent
in a single compound

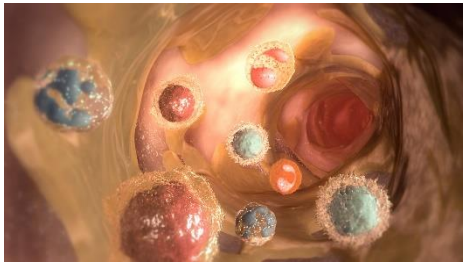
Ensifentrine first-in-class candidate: Bronchodilator and anti-inflammatory in a single compound

Verona Pharma

Ensifentrine (RPL554)
Dual **PDE3** and **PDE4** enzyme inhibitor

Impacts 3 Key Mechanisms in Respiratory Disease:





Airway Smooth Muscle[1-4]

PDE3, PDE4

Relaxation

↓

Increased bronchodilation

Inflammatory Cells[5,6]

Neutrophils
PDE4

Epithelial cells
PDE3, **PDE4**

Macrophages
PDE3, **PDE4**

Eosinophils
PDE4

Lymphocytes
PDE3, **PDE4**

Fibroblasts
PDE4

↓

Increased anti-inflammatory effects

Epithelial Cells[7,8]

PDE3, **PDE4**

CFTR Activation

↓

Increased mucociliary clearance

1. Calzetta L, et al. J Pharmacol Exp Ther 2013;346:414-23; 2. Calzetta L, et al. Pulm Pharmacol Ther 2015;32:15-23; 3. Matera MG, et al. Am J Respir Crit Care Med 2013;187:A1495; 4. Venkatasamy R, et al. Br J Pharmacol 2016;173:2335-51; 5. Boswell-Amith V, et al. J Pharmacol Exp Ther 2006;318:840-8; 6. Franciosi LG, et al. Lancet Respir Med 2013;1:714-27; 7. Schmidt D, et al. Br J Pharmacol 2000;131:1607-18; 8. Turner MJ, et al Am J Physiol Lung Cell Mol Physiol 2016;310:L59-70.

4 Week Phase 2b: Rapidly improved lung function and progressive symptom relief as single bronchodilator[1,2]

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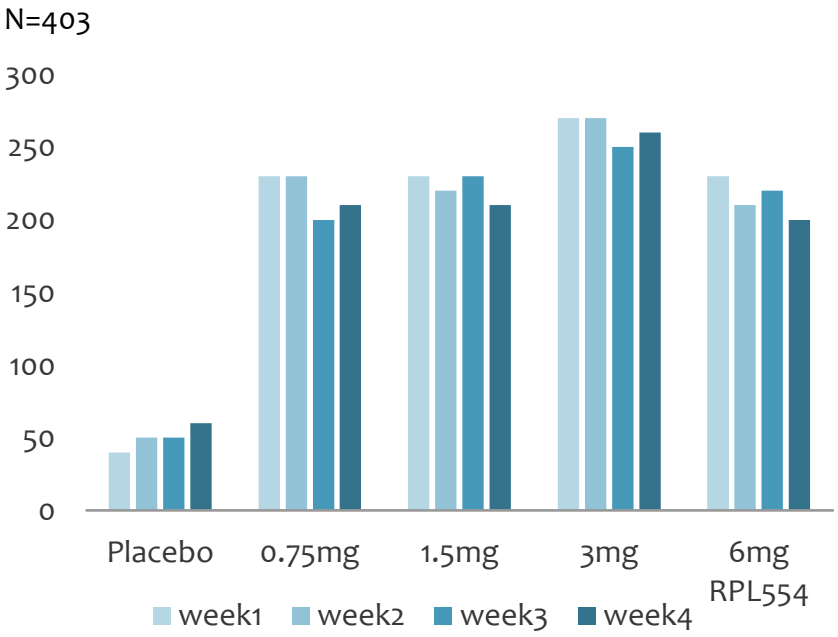
Lung function

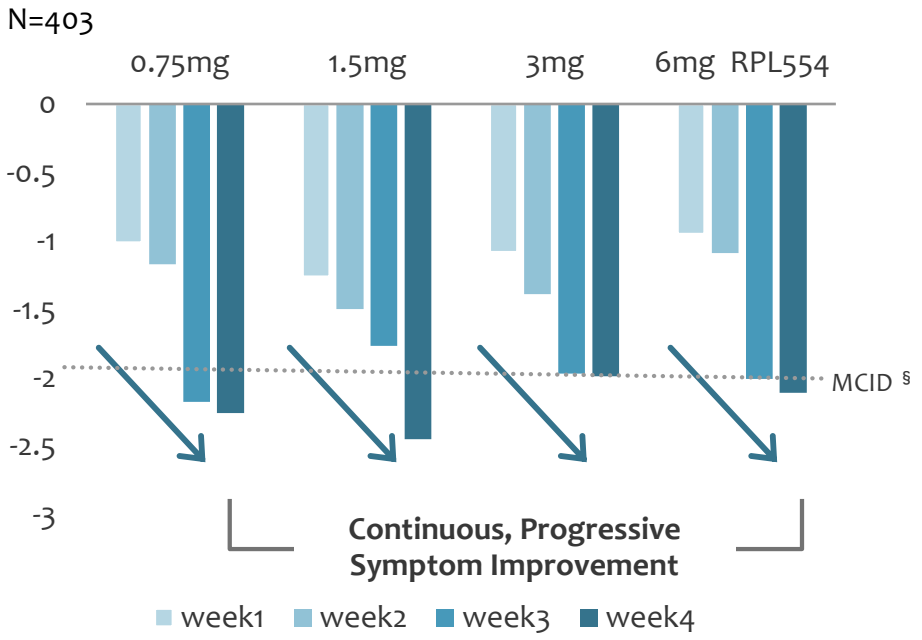
Peak Change FEV_1 (mL) (p<0.001)*



*Peak Change from Day 1 in Baseline in FEV_1 (mL) on Day 28, Week 4, Primary endpoint was met

Symptom relief

Total Score E-RS: COPD by Week, p<0.02**



** Placebo corrected
§ Minimal clinically important difference

Ensifentrine was well tolerated in this and other clinical trials involving > 800 subjects[3-5]

Bronchodilator + anti-inflammatory = Potential to reduce symptoms and exacerbations[a]

[a]Symptoms are a precursor to exacerbations[6-8]

1. Maurer B, et al. Eur Respir J 2018;52:OA1940; 2. Data on file, Verona Pharma; 3. Franciosi LG, et al. Lancet Respir Med 2013;1:714-27; 4. Singh D, et al. Eur Respir J 2018;52:1801074;
5. Verona Pharma Press Release, January 14, 2019; 6. Donaldson GC, et al. Respir Res 2013;14:79; 7. Ke X, et al. Int J Chron Obstruct Pulmon Dis 2016;11:1689-703; 8. Müllerová H, et al. PLoS One 2014;9:e85540.

Phase 2: Improvement in both FEV1 and residual volume when inhaled on top of two bronchodilators

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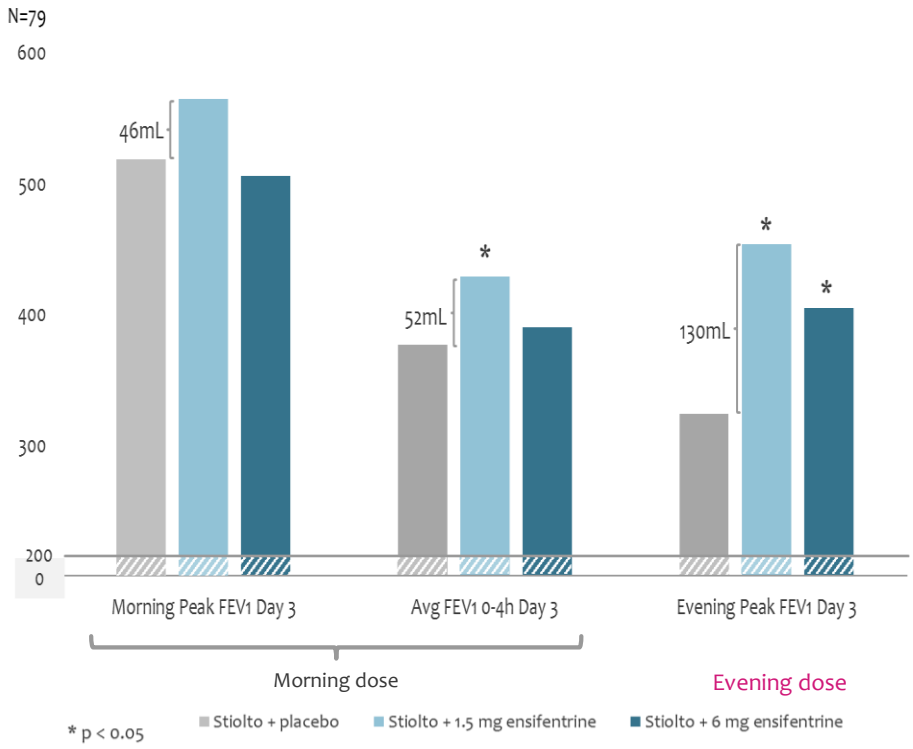
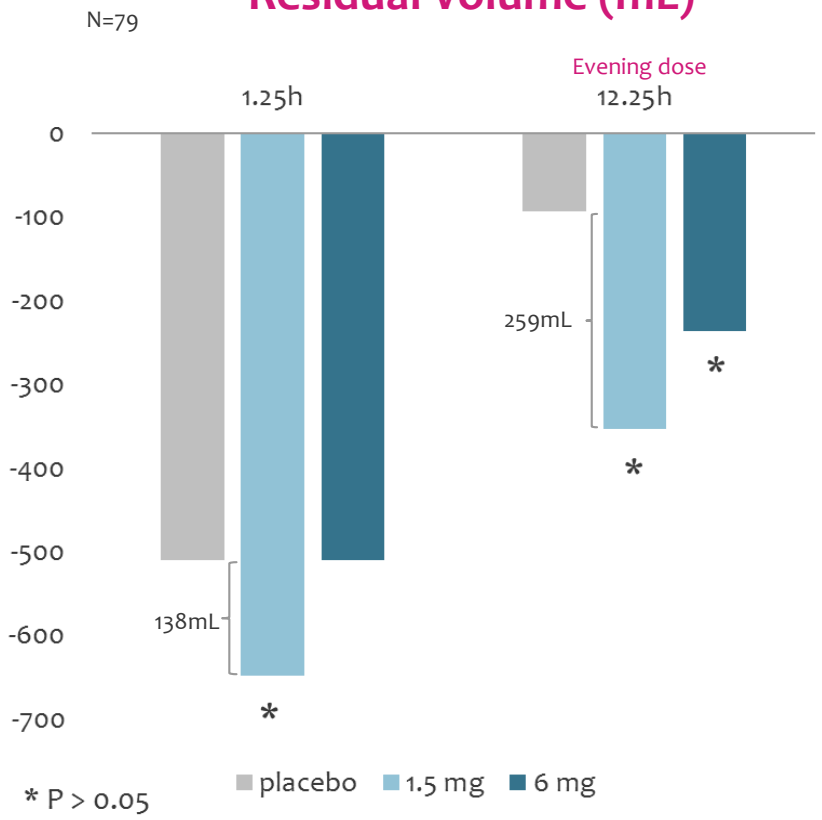
Lung function FEV1 (mL)#



Residual Volume (mL)



FEV1 (mL) Change from Baseline on Day 3
Day 3 morning Peak FEV1, primary endpoint (not statistically significant)

28% of patients used triple therapy (LAMA, LABA, ICS)

Potential to improve symptoms in patients with no further maintenance options

Data on file, Verona Pharma.

Phase 2, Day 3: Significant additional lung function improvement over 24 hours on top of dual/triple COPD therapy

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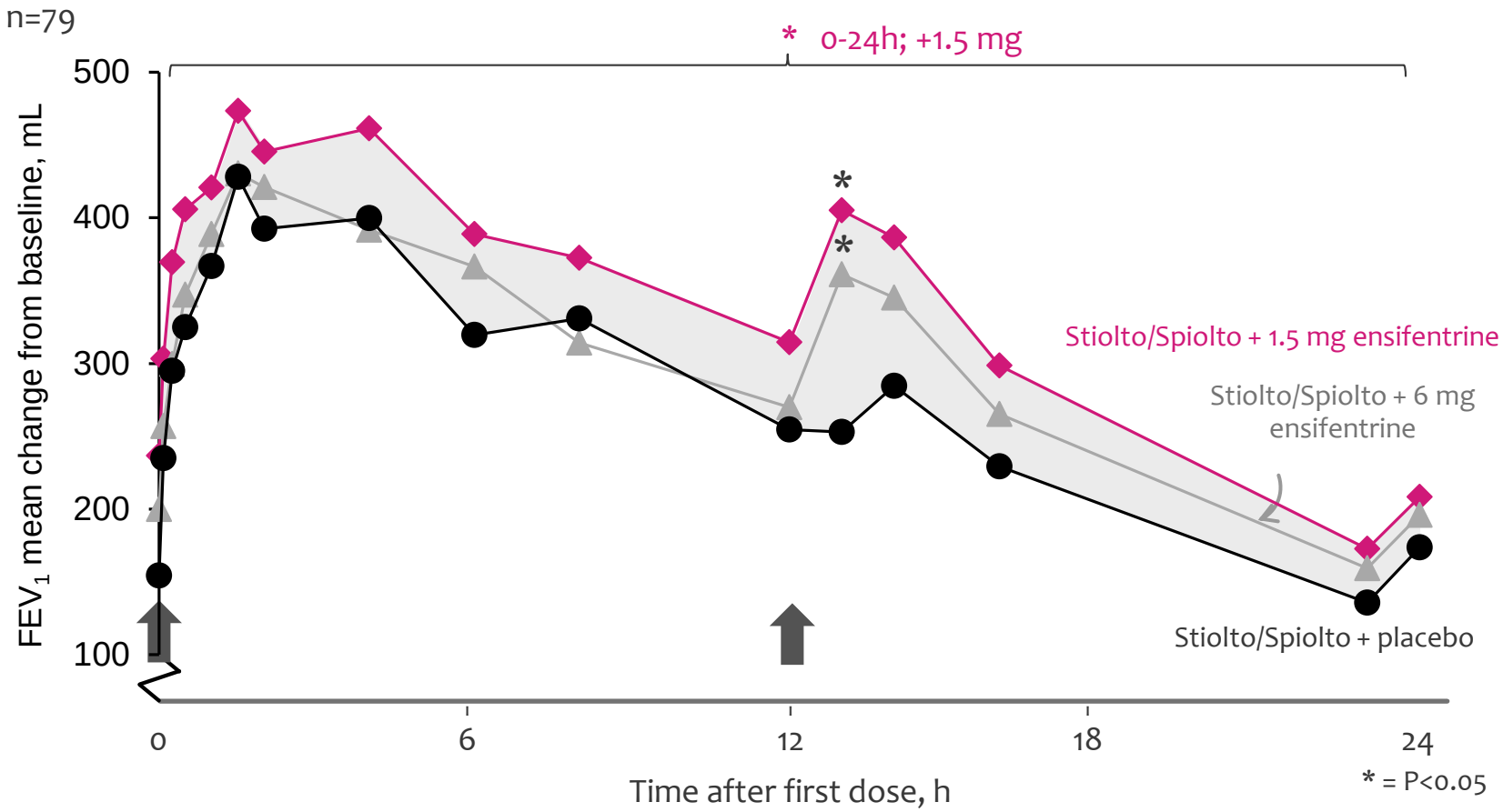
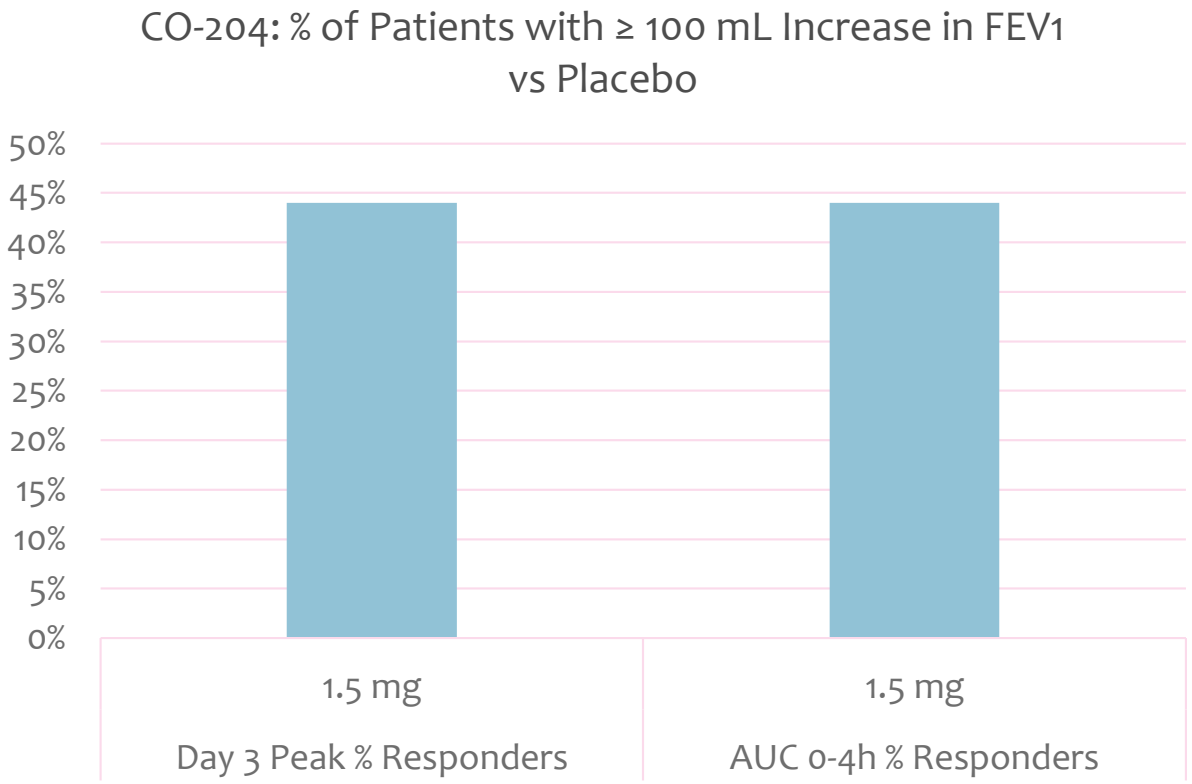


Significant ~50 to 130 mL additional improvement in FEV1 through 24 hours when 1.5 mg dose is added on to dual/triple therapy

Data on file, Verona Pharma.

More than 40% of patients showed >100 ml improvements in FEV1 when added-on to dual/triple therapy

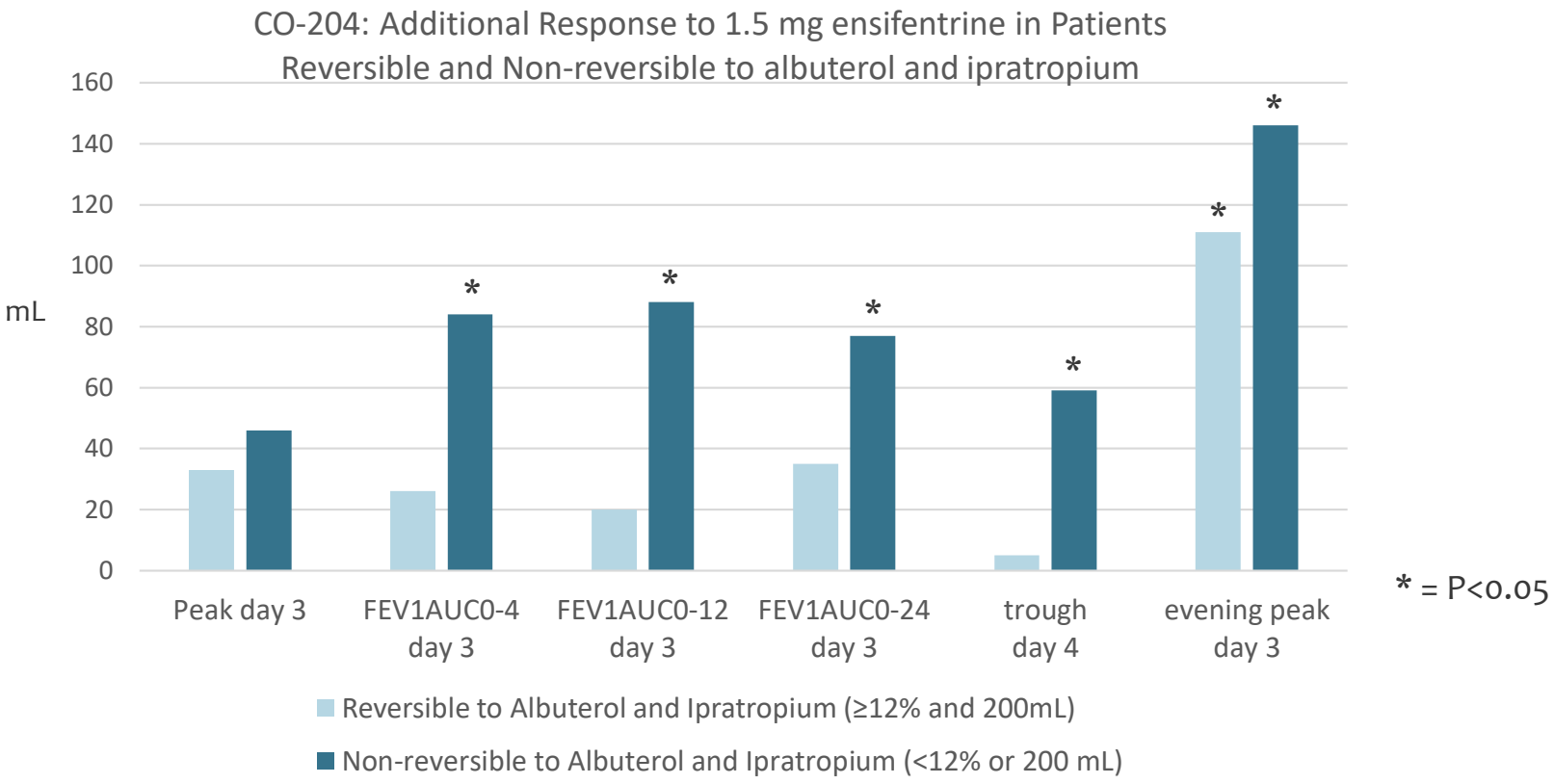
Verona Pharma



Data on file, Verona Pharma.

Patients poorly responsive to standard β_2-agonist and muscarinic antagonists showed increased response to ensifentrine

Verona Pharma



* = P<0.05

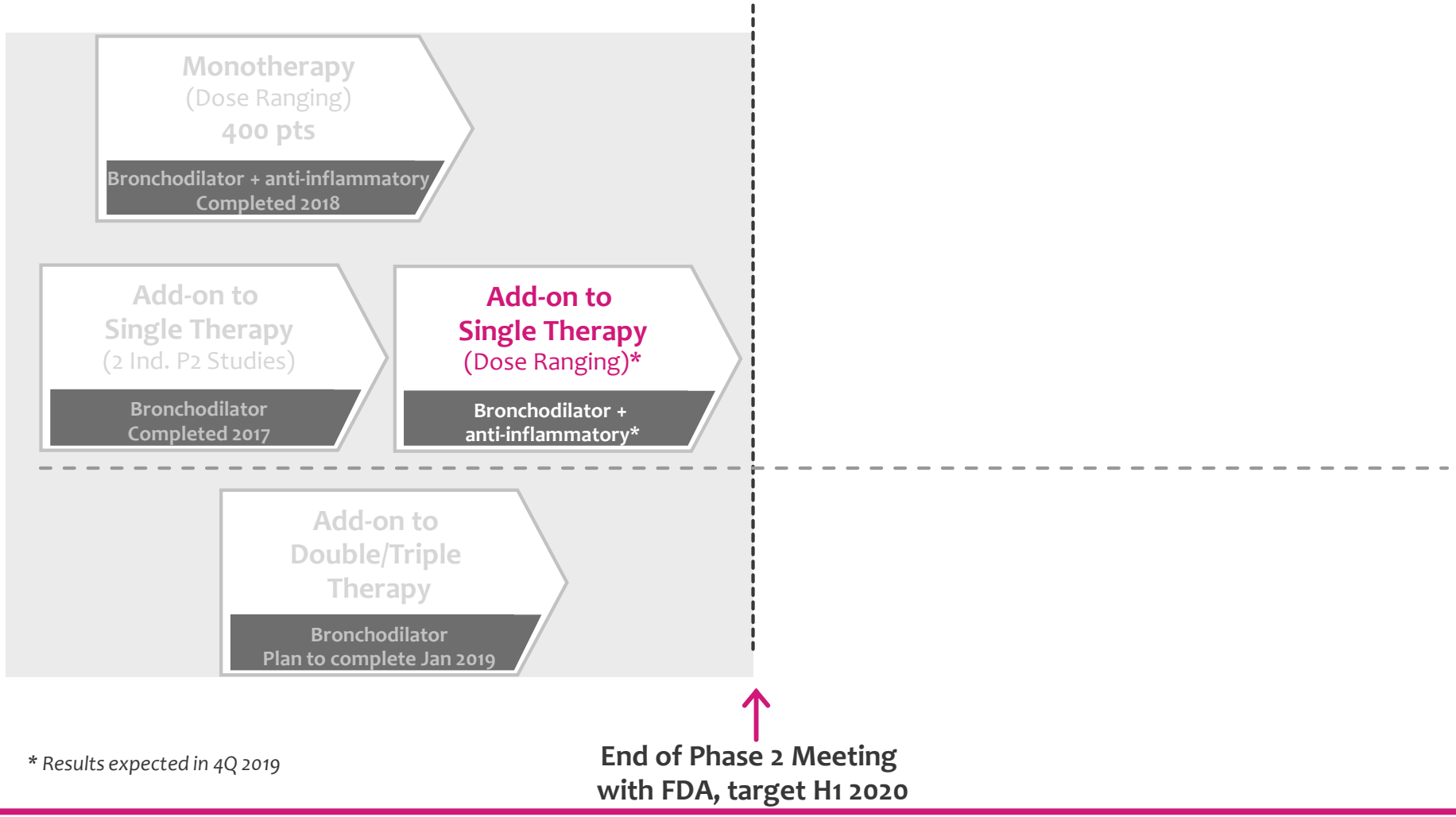
Potential to include symptomatic COPD patients on dual/triple therapy in Phase 3 program

Data on file, Verona Pharma.

Nebulized ensifentrine: Advancing towards Phase 3

Verona Pharma

Phase 2: Establish activity + profile



* *Results expected in 4Q 2019*

Phase 2b 4 week study as add-on to tiotropium to inform EOP2, Ph3 and commercial positioning

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Assumptions

- **Purpose:** Investigate dose response of ensifentrine in moderate to severe COPD patients who are symptomatic despite treatment with tiotropium
  - **Facilitate dose selection for Phase 3** (0.375, 0.75, 1.5 and 3 mg vs placebo)

- **Population:** Moderate to severe COPD
  - **Patients will be required to be symptomatic** at randomization; mMRC ≥2
  - Stable tiotropium as required background therapy (2-week run-in on tiotropium Respimat)

- **Key Endpoints:** FEV1 (peak, AUC, trough), E-RS symptoms

Nebulized ensifentrine: Advancing towards Phase 3

Verona Pharma

Phase 2: Establish activity + profile → **Phase 3:** Regulatory and positioning

Monotherapy
(Dose Ranging)
400 pts
Bronchodilator + anti-inflammatory
Completed 2018

Add-on to
Single Therapy
(2 Ind. P2 Studies)
Bronchodilator
Completed 2017

Add-on to
Single Therapy
(Dose Ranging)*
Bronchodilator +
anti-inflammatory*

Add-on to
Double/Triple
Therapy
Bronchodilator
Plan to complete Jan 2019

A. Potential pivotal studies: Design and endpoints based on Ph2

2 trials of 6 month duration, one with 6 month safety extension
-
None or single bronchodilator background
-
Lung function (FEV1), symptom improvement, explore exacerbations in pooled data

B. Planned positioning study for physicians and payors

Add-on treatment to single and dual bronchodilators in COPD

End of Phase 2 Meeting with FDA, target H1 2020

* *Results expected in 4Q 2019*

2019 - multiple significant milestones as ensifentrine advances towards Phase 3 in 2020

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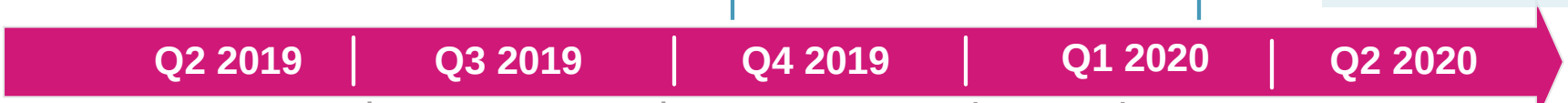
Nebulized ensifentrine as maintenance treatment for COPD

Data from 4 week Phase 2 dose ranging as add-on to single therapy

FDA: End of Phase 2 meeting

Start Phase 3



DPI/MDI Inhaler ensifentrine as maintenance treatment for COPD

Phase 2 DPI data 1 week dosing

Phase 2 MDI data Single dose

Phase 2 MDI data 1 week dosing

Simple Phase 3 trial design, similar to Phase 2b studies, to increase likelihood of regulatory success

Ensifentrine clinical profile to date reinforces safety

Verona Pharma

Safety:

- Ensifentrine well-tolerated at all dose levels
- AEs generally balanced between ensifentrine and placebo
- No GI disturbance observed

Cardiac Safety:

- No consistent change in systolic or diastolic blood pressure
- Small, not clinically relevant increase in heart rate at higher doses:
  - Approx. 3 bpm with 6 mg dose
  - 6 bpm at ensifentrine 24 mg dose (4x over highest dose in Phase 2b study)
- No QTc prolongation
- No changes in 24 hour Holter Monitors (450 COPD patients, repeat dose studies)
- No changes in ECG parameters
- No consistent or dose-related increase in cardiac AEs in completed clinical trials

A new class of treatment in COPD: how could ensifentrine alter the treatment paradigm?

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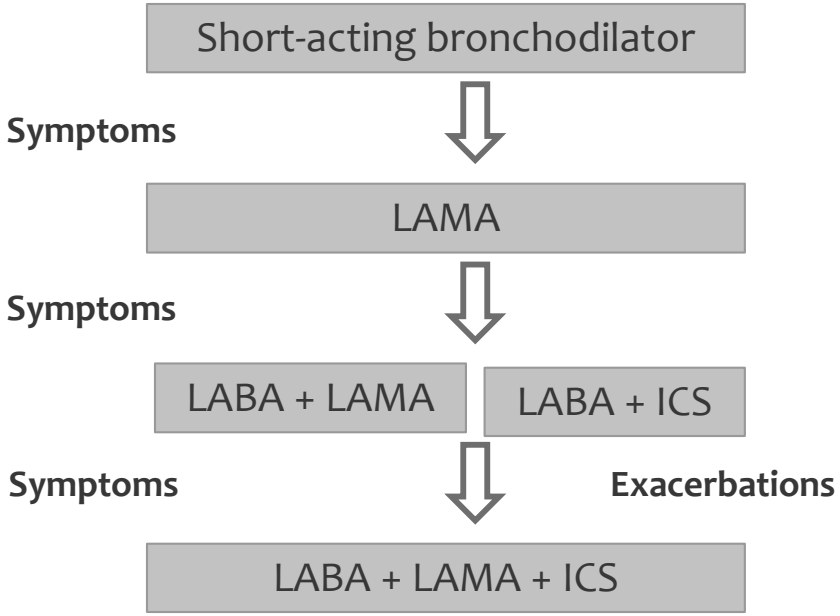
- Many treated patients still require symptomatic improvement – there is room to do more
- Ensifentrine may provide a new anti-inflammatory option
- Ensifentrine offers bronchodilator and anti-inflammatory properties in one compound



Up to 40% of patients remain symptomatic

Opportunity for ensifentrine

+ add-on ensifentrine

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Speaker Panel Q&A

Agenda

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Time	Details
09:00 – 09:15 am	**Welcome** (*Jan-Anders Karlsson, CEO, Verona Pharma*)
09:15 – 09:30 am	**The Patient Perspective, British Lung Foundation** (*Chris Warburton, Patient Advocate*)
09:30 – 10:30 am	**Clinical Expert Perspective** (*chaired by Brian Leaker, Royal Free Hospital*) • *COPD treatment challenges/unmet need (Robert Wise, M.D. 15 min)* • *US payer landscape (15 min)* • *Treatment pipeline (Gerard Criner, M.D. 15 min)* • *Ensifentrine clinical progress (Kathleen Rickard, CMO 15 min)*
10:30 – 11:15 am	**Speaker Panel Q&A**
11:15 – 11:30 am	**Close** (*Jan-Anders Karlsson*)

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Summary & close

Jan-Anders Karlsson

CEO, Verona Pharma

Ensifentrine: A promising novel treatment for patients with COPD

Verona Pharma

Data collected to date indicates:

- ✓ First-in-class PDE3/4 inhibitor with **bronchodilator and anti-inflammatory effects**, and well tolerated
- ✓ Improves symptoms in **moderate to severe,** symptomatic COPD patients on twice daily dosing
- ✓ Improves lung function in patients taking maximum bronchodilator treatment with dual/triple therapy
- ✓ Targeting FDA End of Phase 2 Meeting **H1 2020**
- ✓ Subsequently, **advancing nebulized ensifentrine** into Phase 3 trials in patients symptomatic despite using standard COPD medications