Physicians managing patients with methamphetamine-associated pulmonary arterial hypertension: Understanding the unmet medical needs from a provider lens

John F Kingrey¹, Nick H Kim², Sonja Bartolome³, Jeffrey Robinson⁴, Hyein G Lee⁵, Marinella Sandros⁶, David Lopez⁶, Ankita Adhia⁶, Natalie Gearhart⁶, Michelle Cho⁶, Lana Melendres-Groves⁷

¹INTEGRIS Health, Oklahoma, USA; ²UC San Diego Health, California, USA; ³UT Southwestern, Texas, USA; ⁴Oregon Health & Science University, Oregon, USA; ⁵Putnam Associates, Massachusetts, USA; ⁶Johnson & Johnson, New Jersey, USA; ⁷University of New Mexico Health Sciences, New Mexico, USA

Background

- PAH is a complex, progressive and potentially fatal disease characterized by increased pulmonary vascular resistance, leading to right heart failure and premature mortality
- Toxin-induced PAH is a growing concern, particularly Meth-APAH which presents unique challenges due to poorly understood mechanisms and societal stigma
- Physicians treating Meth-APAH face unique challenges with this population, including a paucity of data guiding surveillance and treatment, complex clinical care, and insufficient resources to manage addiction

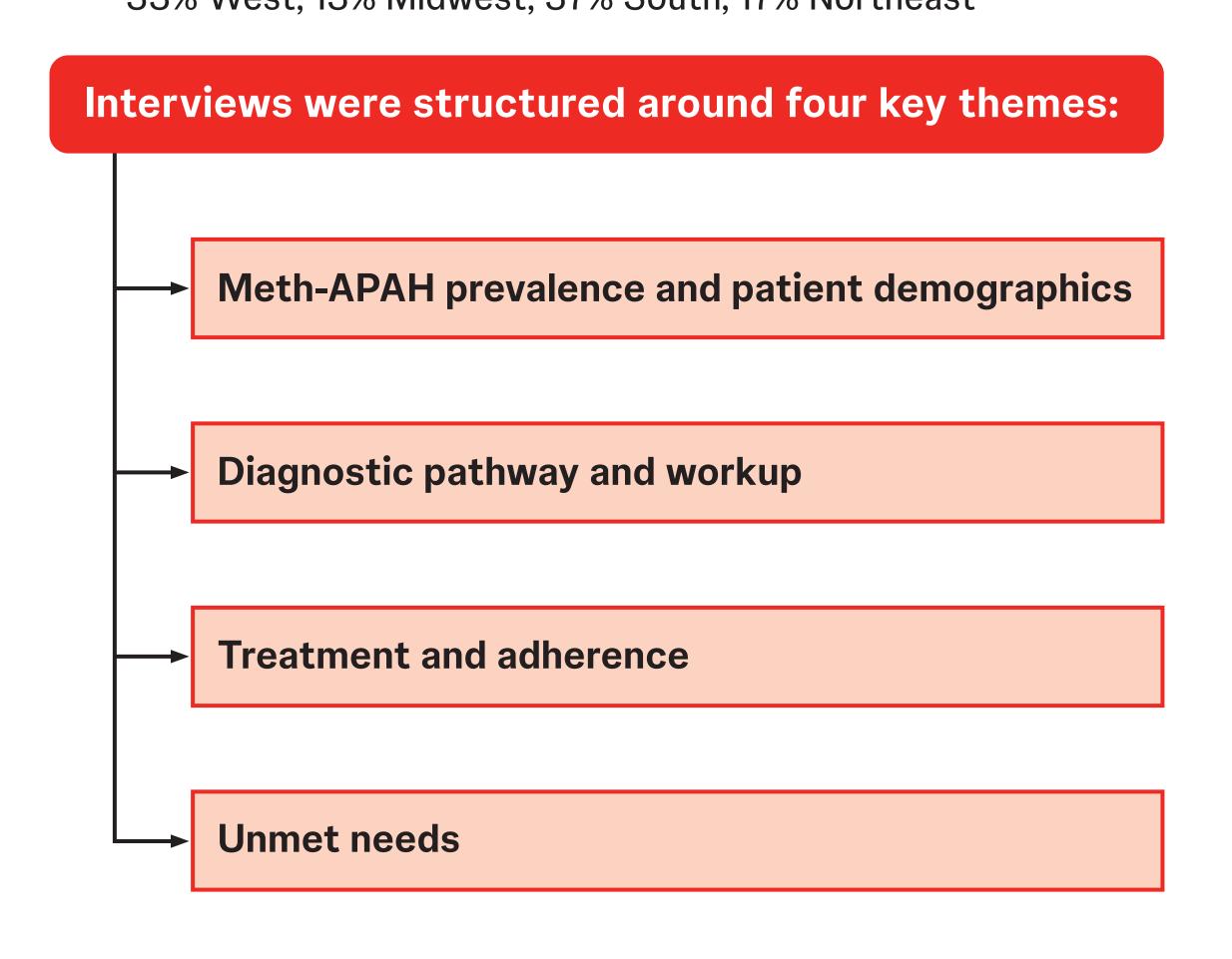
Objective

To share the experiences and perspectives of U.S. physicians experienced in managing patients with Meth-APAH, including diagnosis and treatment strategies and unmet needs

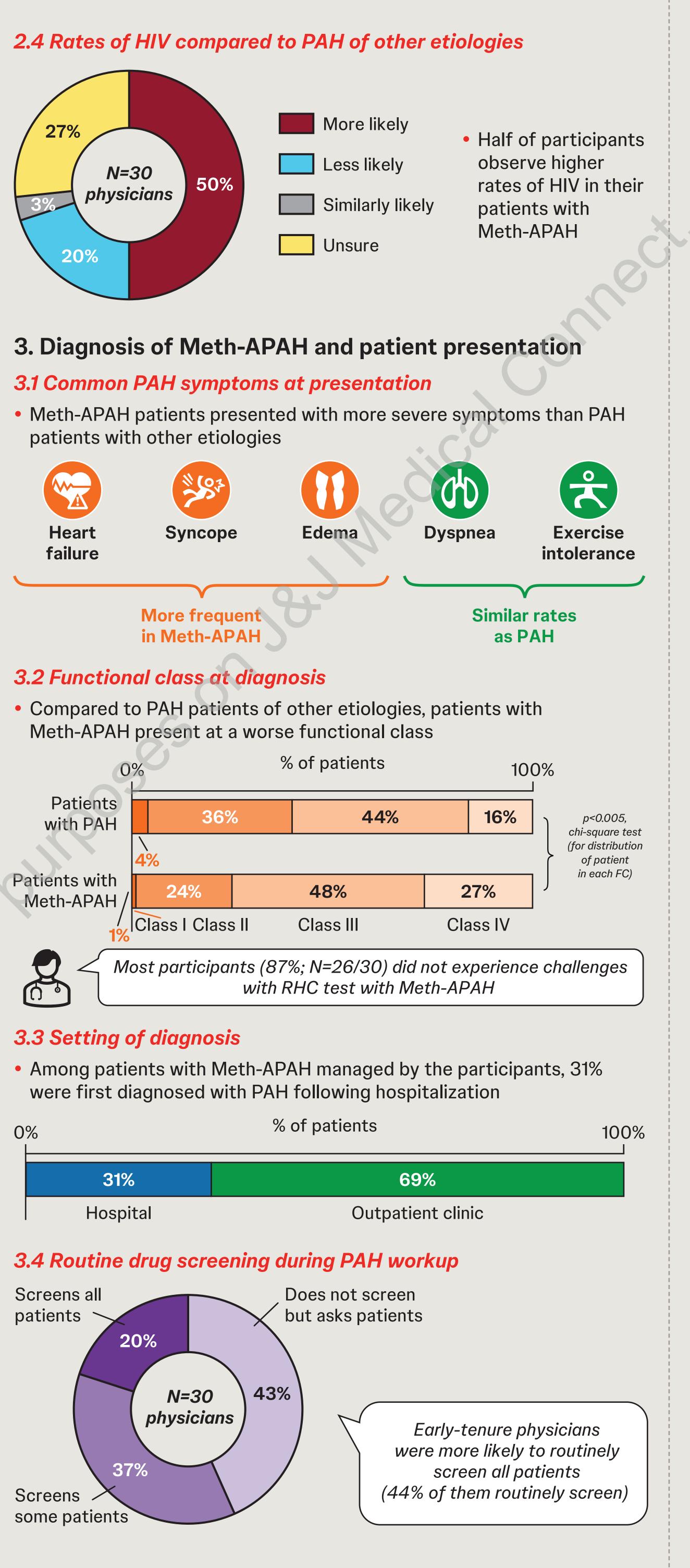
Methods and participant sample

30 U.S.-based physicians (18 pulmonologists, 12 cardiologists) participated in this research

- Structured interviews were conducted in April 2024
- Participants were identified through claims data with a history of managing PAH patients with a meth use history
- Physicians with a higher count of Meth-APAH patients were prioritized for recruitment
- In the past 12 months, participants managed a median of 58 patients with PAH and 10 patients with Meth-APAH
- Most (90%) practiced in academic settings
- Participants were geographically distributed as follows: 33% West, 13% Midwest, 37% South, 17% Northeast

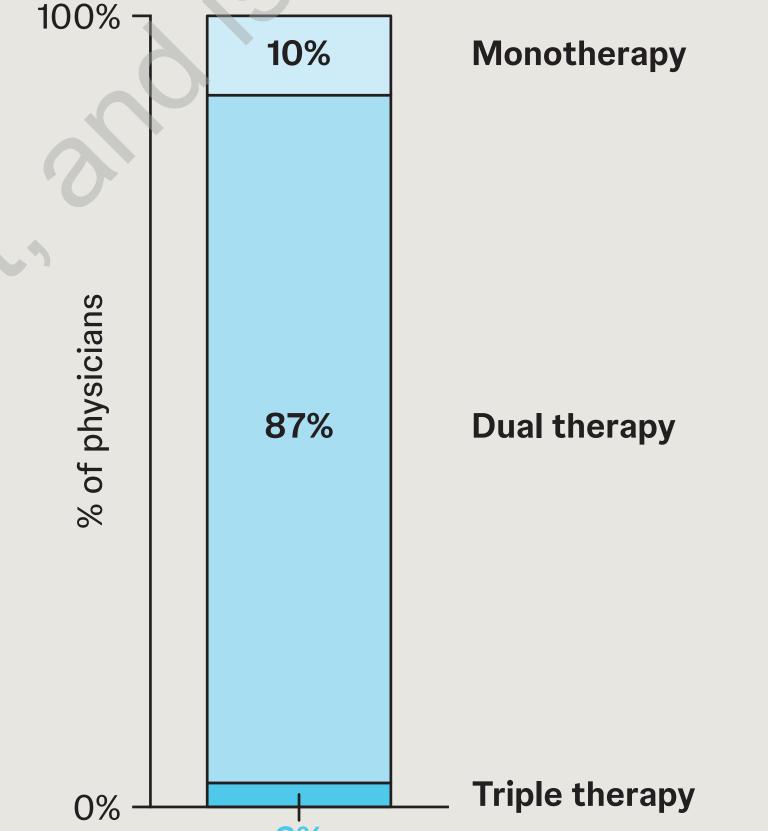


Results 1. Prevalence of Meth-APAH 1.1 Prevalence of Meth-APAH: Overall and by physician tenure Meth-APAH Mid-tenure^b Other **Tenured**^c % of PAH N=2593 patients patients with Meth-APAH with PAH ^aEarly tenure: ≤10 years of practice post-training. ^bMid-tenure: >10 and ≤20 years of practice post-residency. Tenured: >20 years of practice post-residency. + = p < 0.05, t-test. **ns**, not statistically significant. • On average, participants believe ~13% of their patients with PAH in the past 12 months had Meth-APAH Early-tenure physicians reported a higher proportion of patients with Meth-APAH compared to more tenured physicians 2. Characteristics of patients with Meth-APAH **2.1** Age The average age of patients with Meth-APAH managed by the 25% participants was 43 years Participants agree patients with 35-49 45% Meth-APAH tend to be younger than their patients with PAH of other etiologies 26-34 23% Participants attribute the younger age of patients to the faster progression of the disease 2.2 Gender Male Most participants agreed that compared to PAH of other etiologies, Meth-APAH is more likely to affect male patients Female 2.3 Likelihood of patient with Meth-APAH to be uninsured More likely Similarly likely Unsure Meth-APAH patients were more physicians likely to be uninsured or on



4. Meth-APAH treatment and adherence

4.1 Preferred initial Meth-APAH treatment



- Similar to other PAH types, dual therapy (PDE-5i + ERA) is the preferred initial therapy
- Some participants sequentially escalate treatment to monitor adherence and build trust
- Most (73%; N=22/30) prescribe parenteral PPAs for Meth-APAH when needed

4.2 Treatment initiation and compliance rates

 Compared to PAH patients with other etiologies, Meth-APAH patients have lower treatment initiation and adherence rates

Meth-APAH treatment initiation rate: 81%

Meth-APAH treatment adherence rate:

56%

5. Unmet needs in Meth-APAH care



Insufficient addiction resources

 Over half of physicians reported challenges accessing adequate resources for addiction care through their institution



Limited Meth-APAH research

 Participants would like to see more research into the pathophysiology of Meth-APAH and evidence-based management strategies



Low awareness in frontline HCPs

 Participants view frontline HCPs as critical players in supporting early Meth-APAH suspicion and diagnosis



Underdiagnosis of PAH in meth users

• Given the importance of early diagnosis and treatment, participants note heightened suspicion of PAH in active users may help

Other unmet needs mentioned: cost of care, insufficient patient education, pill burden

Pulmonary Hypertension



Scan the QR code The QR code is intended to provide scientific information for individual reference, and the information should not be altered or reproduced in any way.

Follow the link:

https://www.jnjmedicalconnect.com/media/attestation/congresses/pulmonaryhypertension/2025/team-phenomenal-hope/qualitative-interviews-of-physicians-managingpatients-with-methamphetamine-associated-pulmonary-art.pdf

Key takeaways

with the goal of improving

public health issue

This research seeks to share the

experiences and perspectives of

physicians managing Meth-APAH

recognition and care for this growing

On average, providers in this

study felt approximately 13%

diagnosed with Meth-APAH

of their patients with PAH were

Patients with Meth-APAH were

younger, male, uninsured or on

perceived to be more likely to be

Medicaid, and present with worse

symptoms compared to patients

with PAH of other etiologies

Most physicians do not routinely

test all their PAH patients for

patients with Meth-APAH were

with a worse functional class

Providers observe patients

to initiate therapy following

diagnosis and have trouble

maintaining compliance to

to be addressed to improve

Meth-APAH care

study call for:

drug use:

support:

Meth-APAH

Acknowledgments

Johnson & Johnson.

Disclosures

Implications of this study

To improve the outcomes of patients

with Meth-APAH, the findings of this

Greater consistency in assessing

Improving consistency in identifying

past and ongoing meth use can

Lack of institutional resources

cessation is a critical unmet need

Educating frontline HCPs about

patients with Meth-APAH being first

diagnosed in the ER and the worse

functional class at presentation,

early diagnosis is critical

This research was supported by Johnson & Johnson.

Graphical support was supplied by Twist Medical and funded by

JFK. NHK. SB. and JR are consultants for Johnson & Johnson

HGI has no material or non-material interests related to the

research described in this poster and provided research and

3 Johnson. LM-G reports receiving the following fees and

advisory board), Johnson & Johnson (research, consulting),

Gossamer Bio (research, consulting), Merck (research,

consulting), Bayer (research, consulting).

writing support in accordance with Good Publication Practice

uidelines. MS, DL, AA, NG, and MC are employees of Johnson

support: United Therapeutics Corporation (research, consulting

available to support addiction

Given the high percentage of

reduce biases and underdiagnoses

Additional resources for addiction

more likely to present at the ER

with Meth-APAH are less likely

Unmet needs and challenges need

Providers in this study state

ABBREVIATIONS:

Medicaid compared to patients

with PAH of other etiologies