

Physicians Managing Patients with Methamphetamine-associated Pulmonary Arterial Hypertension: Understanding the Unmet Medical Needs from a Provider Lens

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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

Interviews were structured around four key themes:

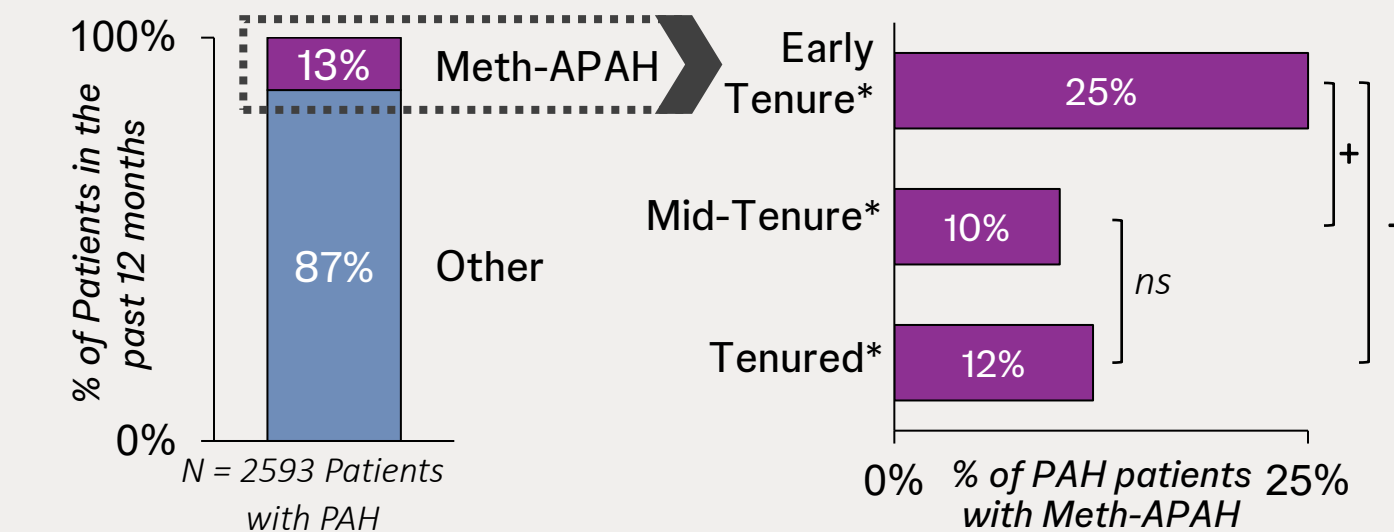
- Meth-APAH prevalence and patient demographics
- Diagnostic Pathway and Workup
- Treatment and Adherence
- Unmet Needs

Presented at: ATS 2025

Results

1. Prevalence of Meth-APAH

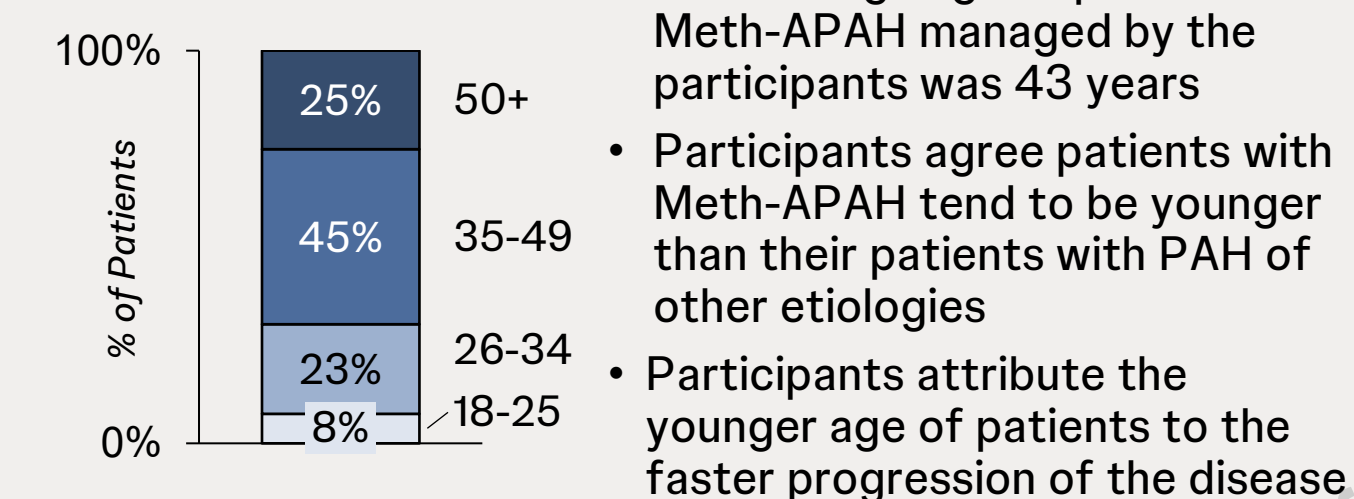
1.1 Prevalence of Meth-APAH: Overall and by Physician Tenure



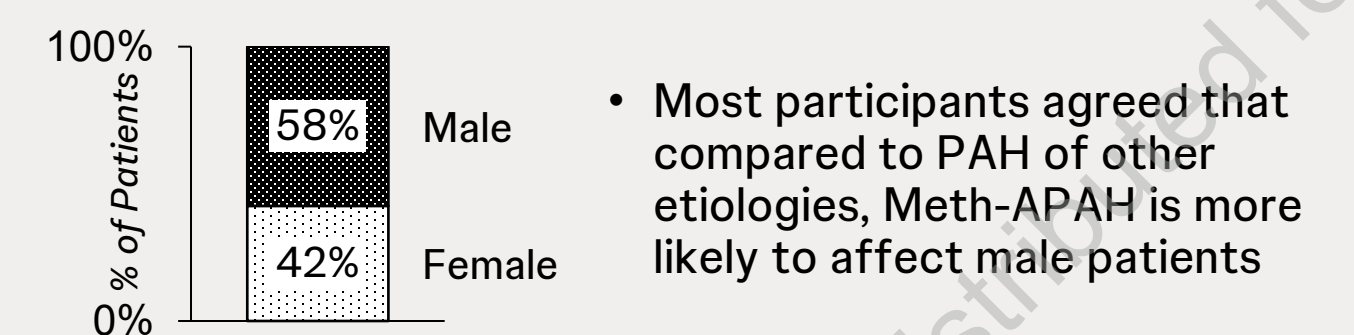
- On average, participants believe ~13% of their patients with PAH in the past 12 months had Meth-APAH
- Early-tenure physicians reported a higher proportion of patients with Meth-APAH compared to more tenured physicians

2. Characteristics of Patients with Meth-APAH

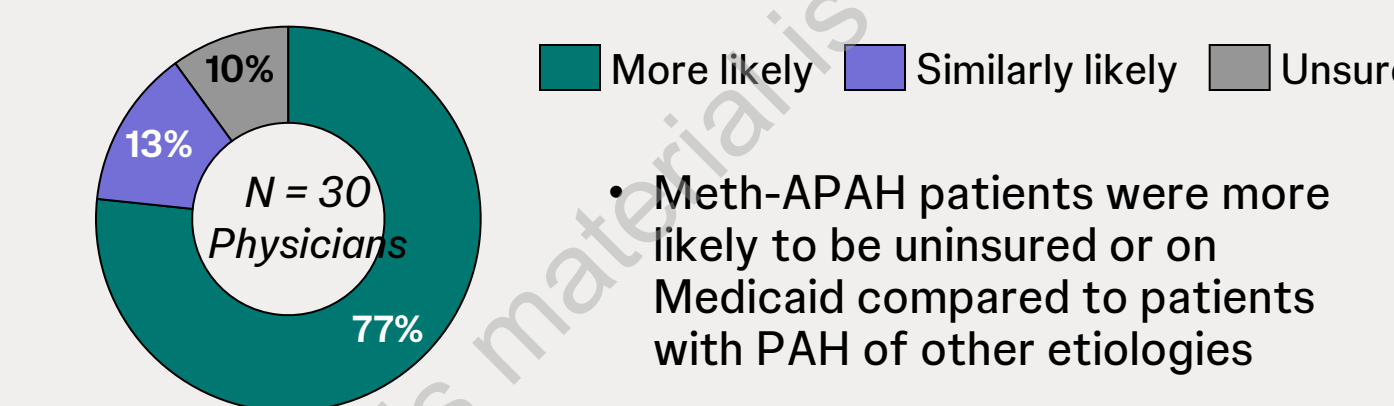
2.1 Age



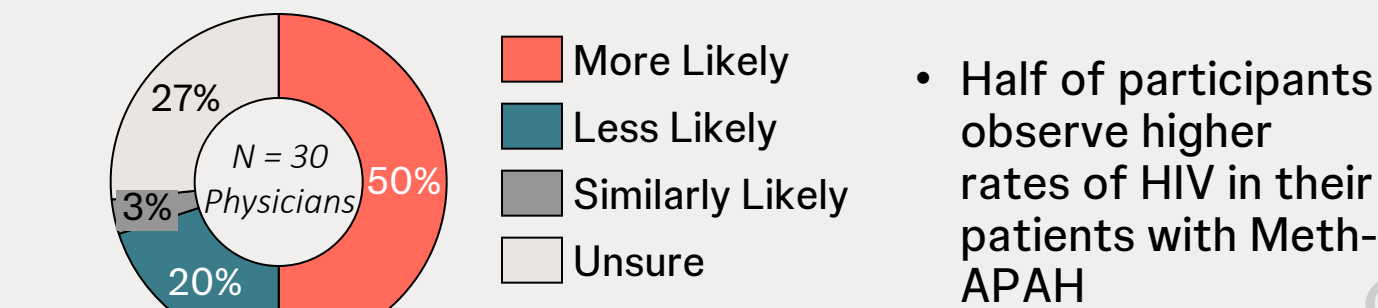
2.2 Gender



2.3 Likelihood of Patient with Meth-APAH to be Uninsured



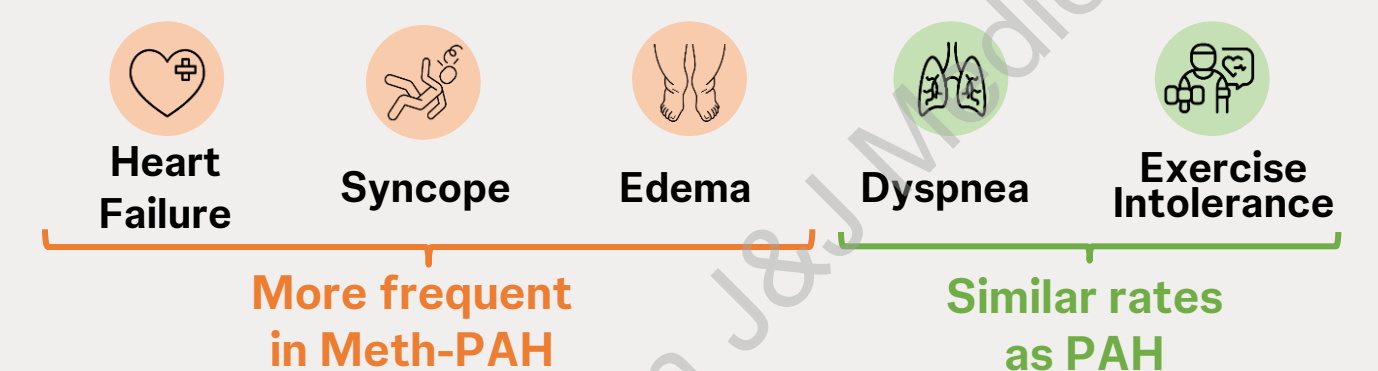
2.4 Rates of HIV Compared to PAH of Other Etiologies



3. Diagnosis of Meth-APAH and patient presentation

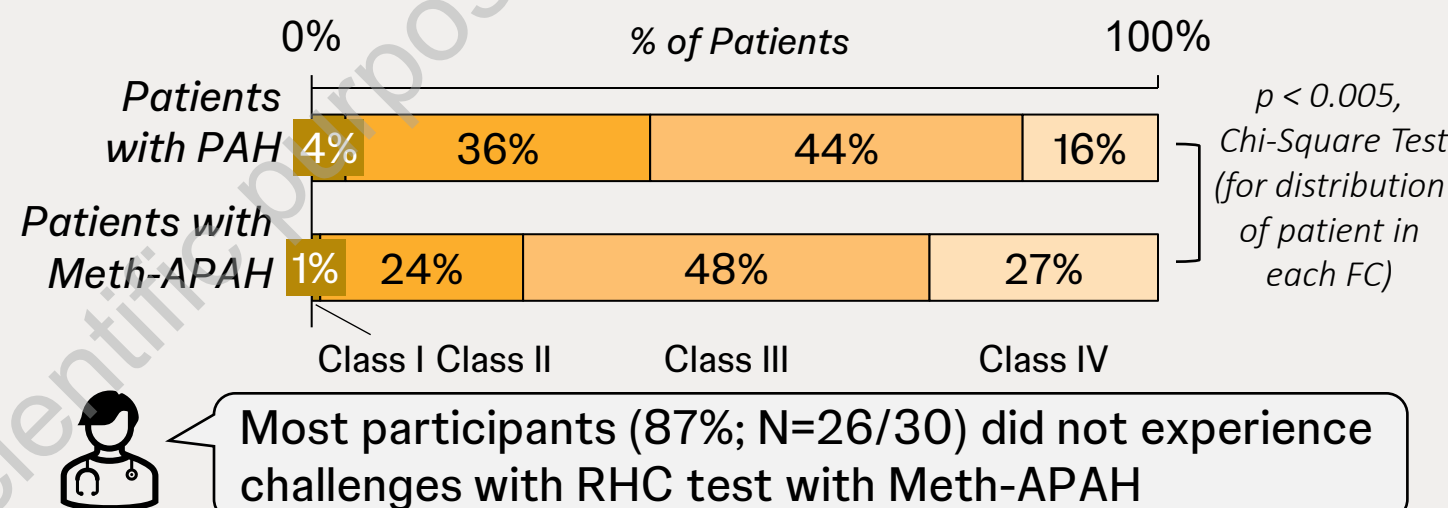
3.1 Common PAH Symptoms at Presentation

- Meth-APAH patients presented with more severe symptoms than PAH patients with other etiologies



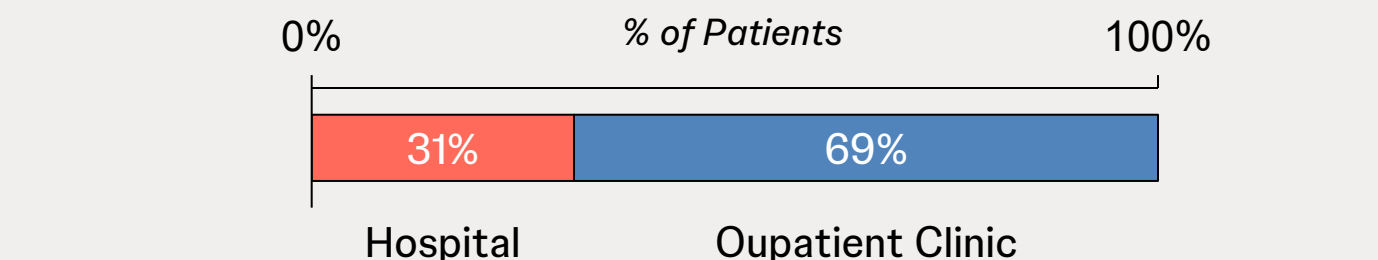
3.2 Functional Class at Diagnosis

- Compared to PAH patients of other etiologies, patients with Meth-APAH present at a worse functional class

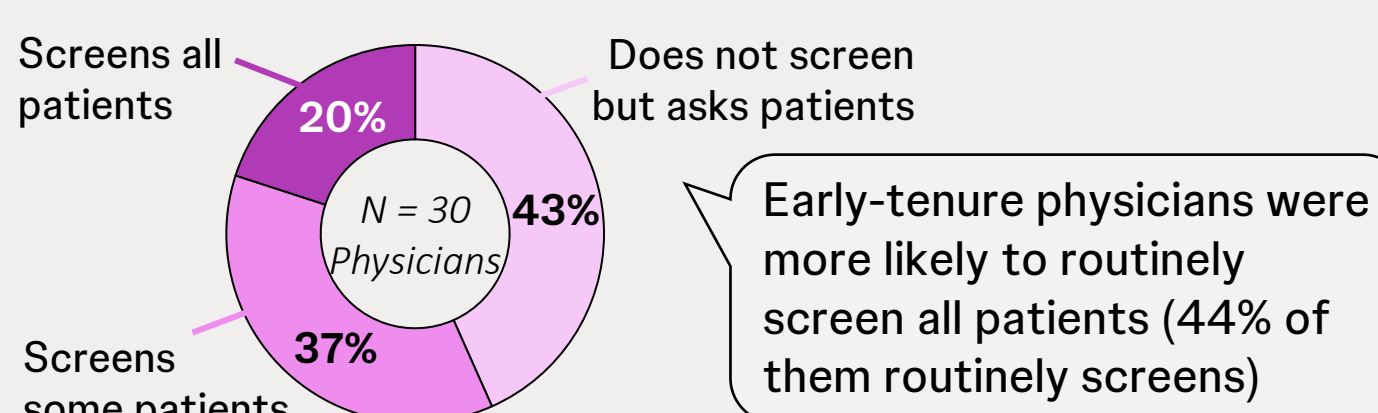


3.3 Setting of Diagnosis

- Among patients with Meth-APAH managed by the participants, 31% were first diagnosed with PAH following hospitalization

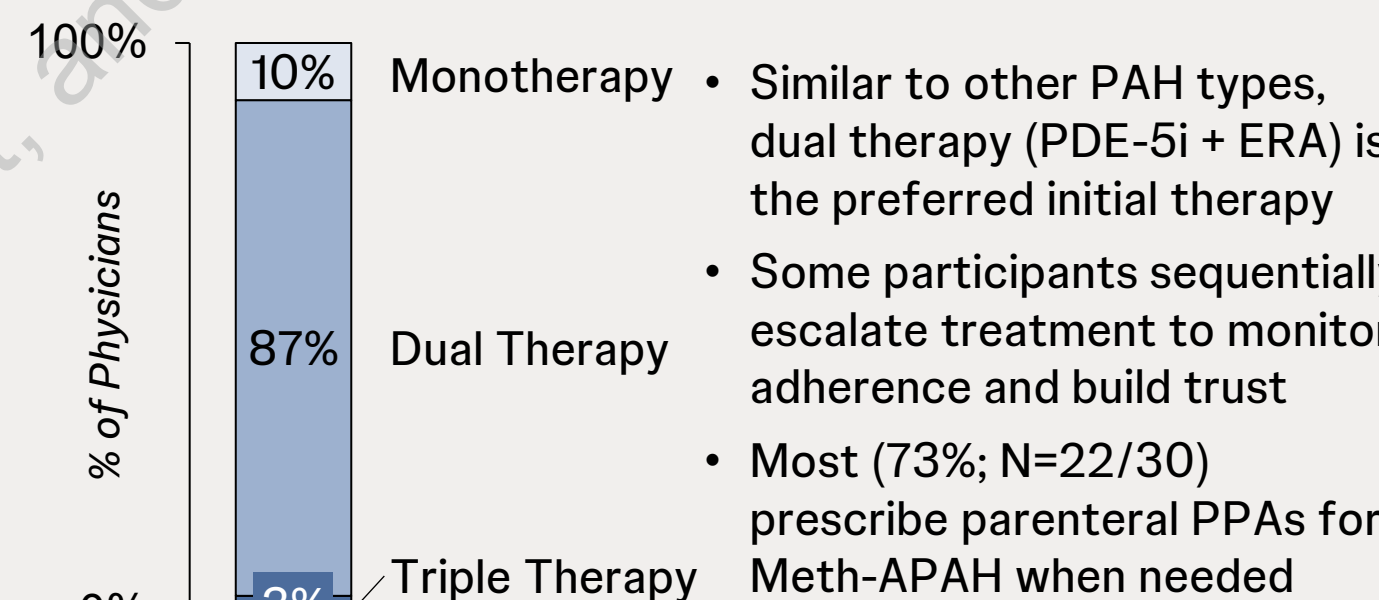


3.4 Routine Drug Screening During PAH Workup



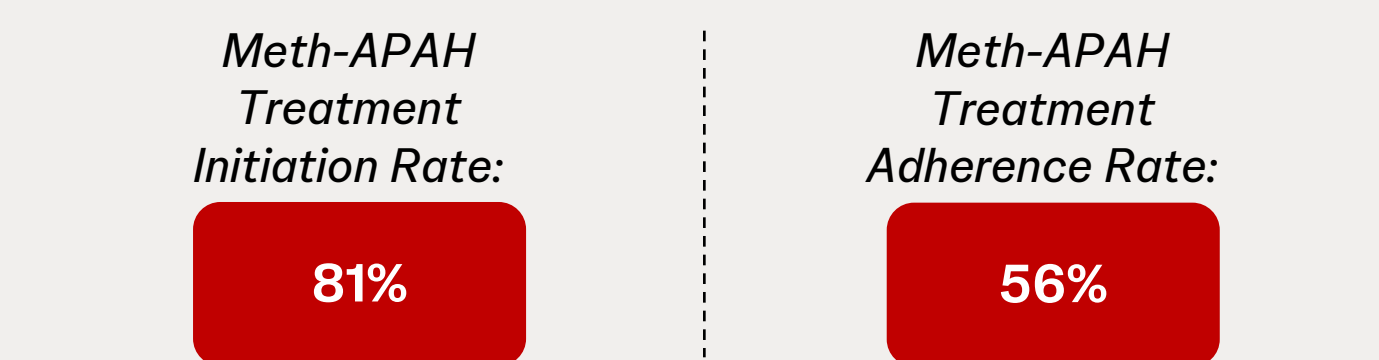
4. Meth-APAH Treatment and Adherence

4.1 Preferred Initial Meth-APAH Treatment



4.2 Treatment Initiation and Compliance Rates

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



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

Abstract 11830

Key takeaways

This research seeks to share the experiences and perspectives of physicians managing Meth-APAH with the goal of improving recognition and care for this growing public health issue



- On average, providers in this study felt approximately ~13% of their patients with PAH were diagnosed with Meth-APAH
- Patients with Meth-APAH were perceived to more likely to be younger, male, uninsured or on 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 drug use
- Providers in this study state patients with Meth-APAH were more likely to present at the ER with a worse functional class



- Providers observe patients with Meth-APAH are less likely to initiate therapy following diagnosis and have trouble maintaining compliance to treatment
- Unmet needs and challenges need to be addressed to improve Meth-APAH care

Implications of this Study

To improve the outcomes of patients with Meth-APAH, the findings of this study calls for:

- Greater consistency in assessing drug use:**
Improving consistency in identifying past and ongoing meth use can reduce biases and underdiagnoses
- Additional resources for addiction support:**
Lack of institutional resources available to support addiction cessation is a critical unmet need
- Educating frontline HCPs about Meth-APAH**
Given the high percentage of patients with Meth-APAH being first diagnosed in the ER and the worse functional class at presentation, early diagnosis is critical

Disclosures

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