

Expert consensus to explore the use of telehealth and associated strategies to improve access to care for remote and underserved patients with pulmonary arterial hypertension

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Background

- The coronavirus infectious disease of 2019 (COVID-19) pandemic was pivotal in the expansion of telehealth, replacing face-to-face visits between patients and clinicians with virtual consultations to reduce the risk of transmission.^{1,2}
- Since the pandemic, PAH referrals and outpatient activity have continued to shift toward a hybrid model, with increased use of telehealth.²⁻⁵
- Regular use of telehealth may benefit patients with PAH by facilitating access to expert care.⁶ However, there are barriers to engagement with telehealth for patients with PAH in remote and underserved populations.⁷⁻¹⁰

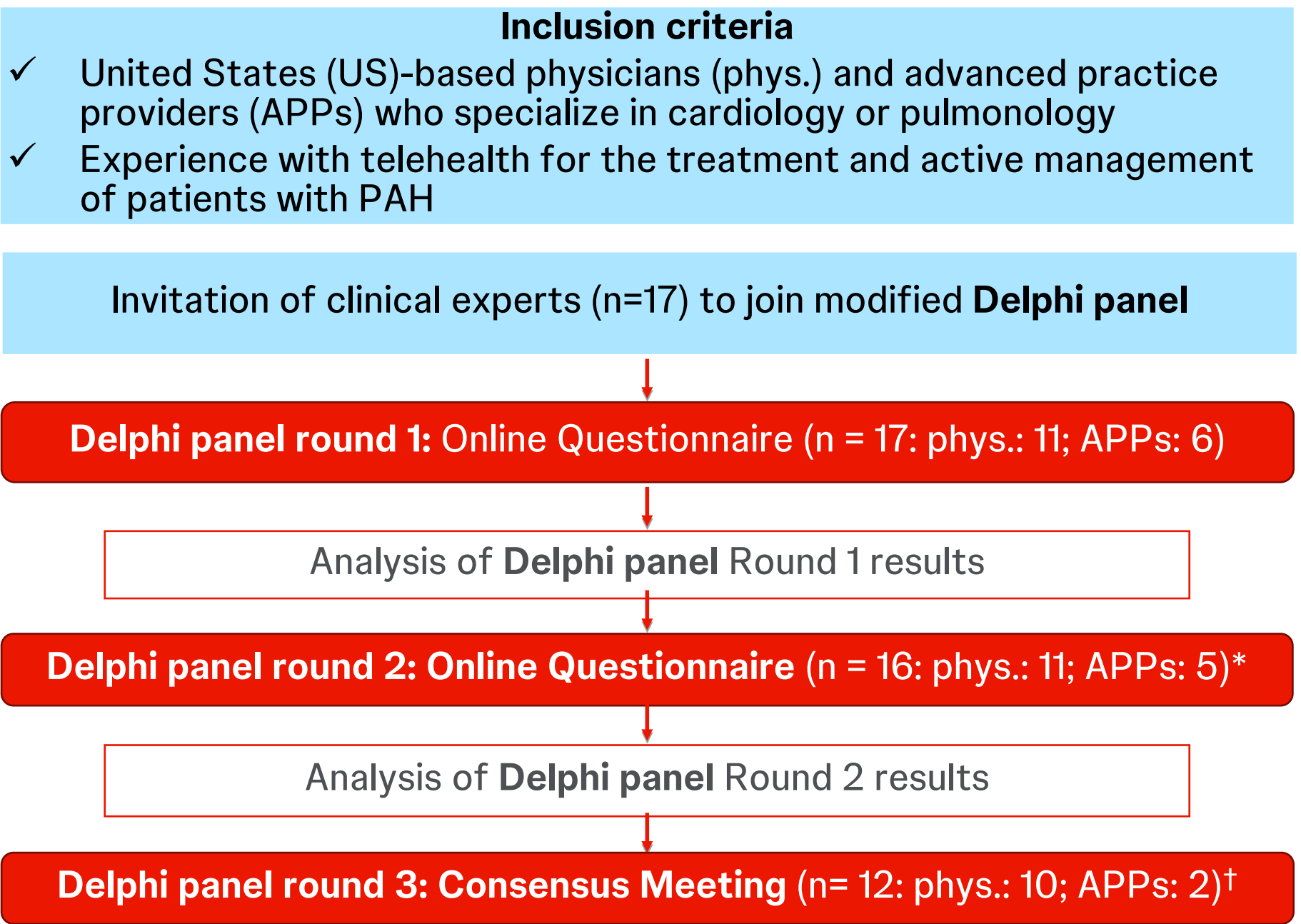
Objective

To clarify and develop a consensus of expert clinical opinion on the benefits and barriers to telemedicine, and to propose solutions to barriers, to improve access to expert care in PAH.

Methods

- A modified Delphi panel involving two survey rounds followed by a final consensus meeting was conducted with clinical experts.

FIGURE 1: Modified Delphi panel process



*One APP that was initially recruited did not complete the second-round questionnaire
†The consensus meeting was scheduled based on panelist availabilities.

- A nine-point Likert scale (from 1 [strongly disagree] to 9 [strongly agree]) was used to rate consensus.

Results

Definition of telehealth

- Telehealth was defined as **the use of virtual or remote methodologies to interact with, monitor and assess patients and to deliver healthcare.**
- Telemedicine was defined as the delivery of clinical care (e.g., assessments, diagnosis, treatment, and prescription of medication) remotely.
- The definition of telehealth would not change when considering different diseases.

Methodologies/interventions considered as telehealth

- ✓ Data recorded via remote clinical device worn by patient
- ✓ Data recorded via smart device
- ✓ Live video consultation
- ✓ Electronic patient visit (billable e-visit)
- ✓ Patient portal message
- ✓ Self-reported patient data inputted into app on smartphone or tablet and shared with HCP electronically
- ✓ Online patient portal
- ✓ Telephone consultation with HCP
- ✓ Patient questionnaire completion
- ✓ Education for both patients and providers performed remotely
- ✓ Monitoring patient weight and edema
- ✓ Adjustment of medications; interfacing with specialty pharmacies
- ✓ Lab work performed at a remote location

Examples of synchronous/asynchronous interventions used for patients with PAH

Synchronous telehealth interventions	Asynchronous telehealth interventions
Live video consultation	Patient portal message
Telephone consultation	

Telehealth use in PAH

- Panelists discussed that payers understand telehealth but the criteria for what is reimbursed change frequently and lack clarity, indicating a lack of appreciation and understanding for what is involved in the provision of telehealth for PAH.
- Panelists agreed that access to at-home monitoring devices, used in other disease areas, could address unmet needs for PAH.
- Panelists agreed that patients may utilize telehealth at returning visits, at diagnostic test (where feasible), follow-up and for PAH medication management. The use of telehealth for post-hospital follow-up is context-dependent.
- The panel agreed that PAH-related healthcare was felt to have suffered for patients with PAH who did not transition successfully to telehealth during the height of the COVID-19 restrictions.

References

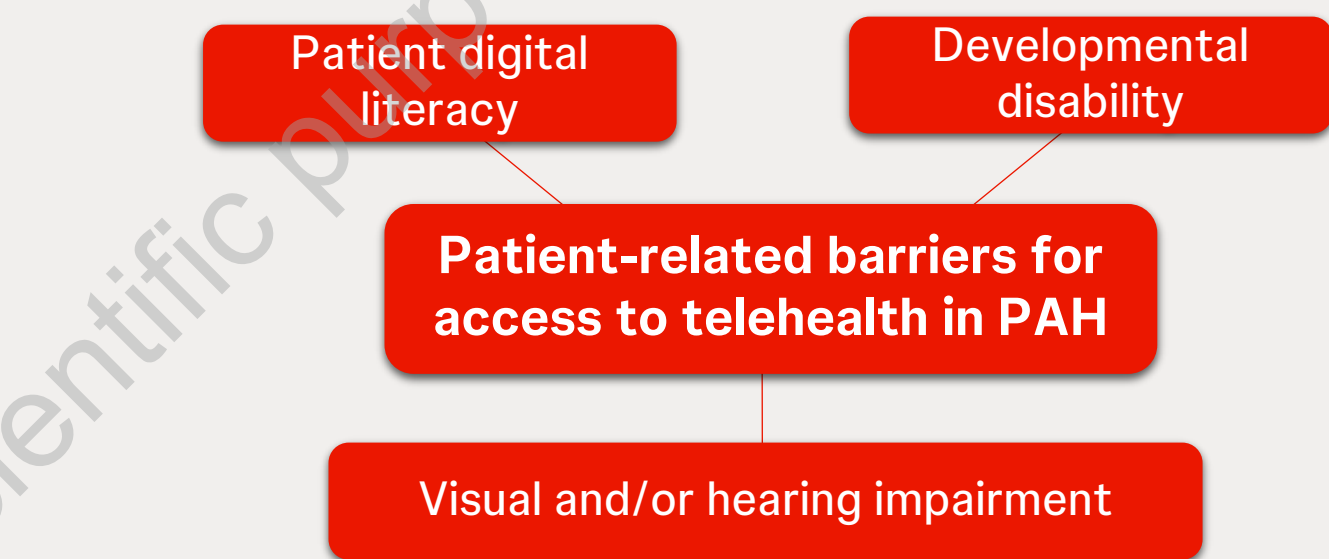
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Benefits of telehealth for patients with PAH

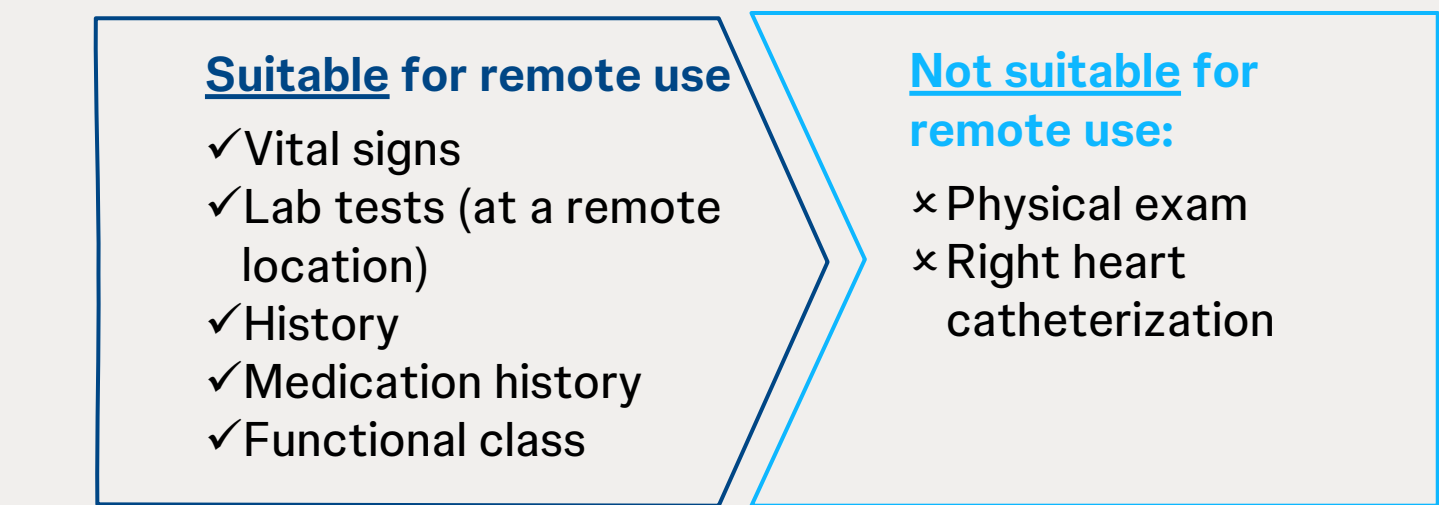


Barriers to telehealth

- Consensus was reached that telehealth is less effective in patients unable to access/use technology. Lack of patient resources was agreed to impact the transition of patients with PAH to telehealth during the COVID-19 pandemic.
- Consensus was reached that regulations (e.g. confidentiality) and financial restraints (e.g. ability to get reimbursed or provide infrastructure) are key barriers to telehealth in PAH.
- Additionally, temporary across-state-licenses facilitated telehealth use during COVID-19, but these have now been rescinded.

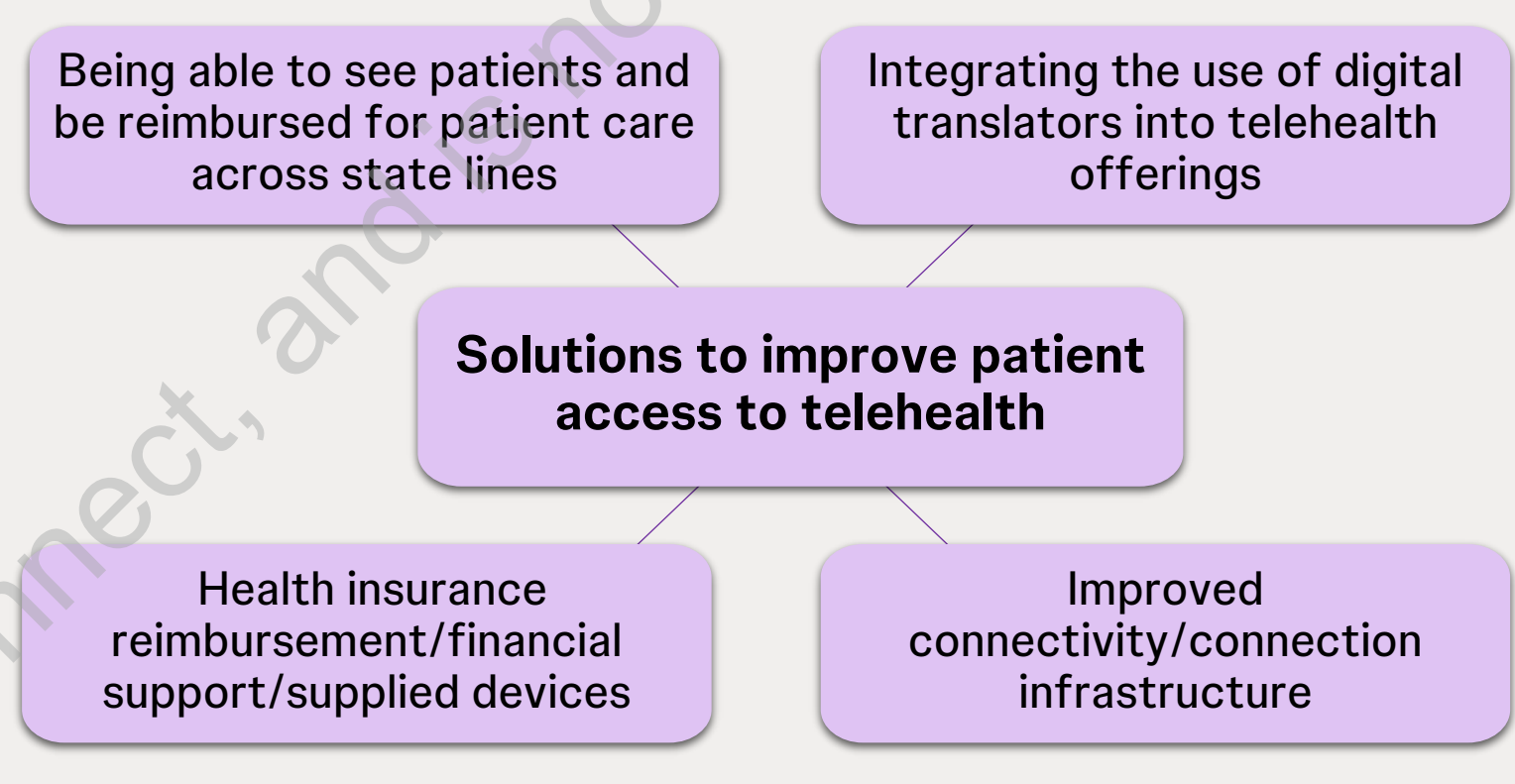


Suitability of clinical evaluations for remote use



- Consensus was not reached for or against remote use of 6-minute walk distance or echocardiogram.

Opportunities and solutions for telehealth in PAH

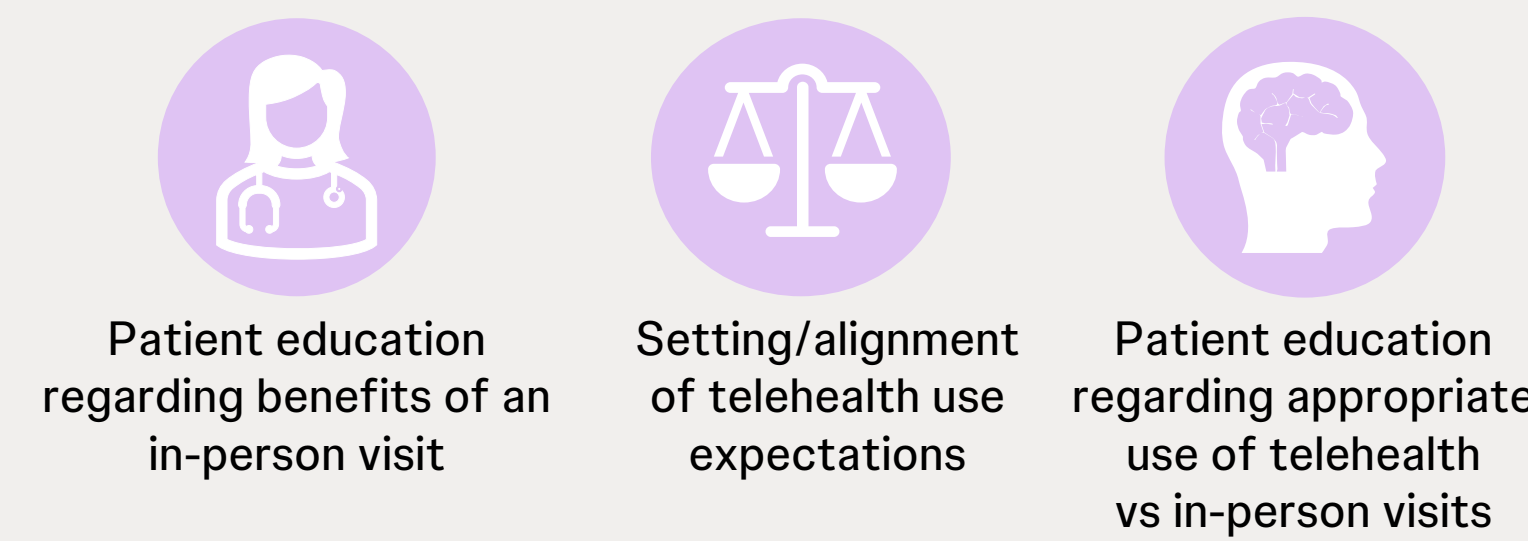


- Consensus was reached that improved broadband internet access is a solution to decrease digital access disparities.
- Companies can partner and collaborate with HCPs to support successful telehealth interventions:
 - during the diagnostic phase, by providing support to improve access for patients to interact with telehealth
 - during treatment, by providing an online platform to support prescription (e.g., portal for online signature, online forms for data collection)
 - during follow-up, by supporting with evidence generation for benefits (e.g., sponsoring of telehealth studies)

Solutions for education

- Consensus was reached that patient-directed learning materials could increase patient education.
- HCPs would like to receive training on reimbursement/billing for telehealth provision.

Solutions to overcoming patient preference for a telehealth visit when an in-person visit is needed



Solutions for provider willingness

- Consensus was reached for the following solutions to increase provider willingness to more widely adopt telehealth in PAH:
 - Reimbursement*
 - Logistical/scheduling considerations (i.e.. making telehealth more accessible and convenient)

*Issues with reimbursement can be solved through change in insurance/payer approach and equal payment for telehealth vs in-person healthcare

Conclusions and Key Takeaways

Key takeaway

- Use of telehealth services can benefit patients through improved access to care, greater convenience, enabling additional visits that allow closer patient monitoring, improving time efficiency and improving health equity.

Conclusions

- Improvements in telehealth practice may ensure closer patient monitoring so that PAH progression is not exacerbated by insufficient access to care.

- Currently, the criteria for telehealth reimbursement can change frequently and licensing restrictions prevent HCPs from providing care to out-of-state patients. This may demonstrate a lack of appreciation of what is involved in the provision of telehealth for PAH by payers.

- Key barriers to the optimal utilization of telehealth in PAH include the lack of patient resources, e.g. internet connection and electronic devices, and reimbursement restraints imposed by insurers and payers.

- Solutions to overcoming barriers to telehealth for PAH include improved health insurance reimbursements/ financial support for HCPs and better connectivity infrastructure for patients.

- These results may inform future PAH management and provide solutions to improve telehealth service provision for HCPs and patients.

Disclosures

SMD is a consultant or advisor for: Accelleron Pharma, Inc.; J&J Innovative medicines, Ltd; Aerami Therapeutics; Janssen Biotech, Inc.; Liquidia Technologies, Inc.; Merck & Co., Inc.; United Therapeutics Corporation. MSK has served as an advisor or consultant for: J&J Innovative medicines, Ltd; United Therapeutics Corporation; Gilead Sciences, Inc. and has served as a speaker or a member of a speaker's bureau for: Actelion Pharmaceuticals, Ltd; United Therapeutics Corporation; Gilead Sciences, Inc.

LMG has acted as a Consultant for United Therapeutics, Merck, Janssen, Bayer; Speaker for United Therapeutics, Janssen, Bayer and Advisory Board Member for United Therapeutics, Janssen, Bayer.

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GGR, MH, CB, SG and GD are employees of J&J Innovative Medicines. GD is a stockholder of J&J Innovative Medicines.

DB, MS, AE, RP and HS are employees of Adelphi Values PROVE, who were contracted by J&J Innovative Medicines to conduct this research.

Pulmonary Arterial Hypertension



Johnson & Johnson