

EARLY DETECTION OF PULMONARY HYPERTENSION BY PULMONOLOGISTS



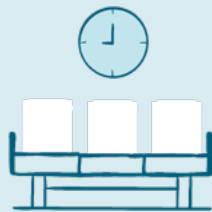
1 WHAT IS PULMONARY HYPERTENSION (PH)?

PH is defined by a **mean pulmonary arterial pressure (mPAP) >20 mmHg** at rest and **pulmonary vascular resistance (PVR) >2 WU**.¹ The diagnosis requires a right heart catheterisation (RHC) performed in a PH expert centre.

2 WHAT IS THE PROFILE OF A PERSON WITH PH?



History of unexplained dyspnea and fatigue¹



History of visiting general practice and specialists while symptoms progress²



'I was totally unable to walk up the stairs and talk at the same time. Anywhere I walked, I felt others were running... After more than ten years trying to understand the cause of my worsening symptoms, I was diagnosed with pulmonary arterial hypertension.'

BETH, A PERSON WITH PH

Pulmonary arterial hypertension (PAH) is a rare and progressive – but treatable – form of PH.³

People with PAH often wait for two years or more to be diagnosed, visiting three or more physicians, and are frequently misdiagnosed with other conditions such as heart failure, asthma and chronic obstructive pulmonary disease (COPD).^{2 4 5}

Delays to PAH diagnosis and treatment lead to:



Right heart failure³



Costly hospitalisations and additional therapies⁶⁻⁹



TIME IS ESSENTIAL

One in five people with PAH dies within three years of diagnosis.¹⁰

WHAT CAN PULMONOLOGISTS DO TO ACCELERATE PH DIAGNOSIS?

According to the 2022 PH clinical guidelines, the simplified pathway to diagnosis has a three-step approach:¹

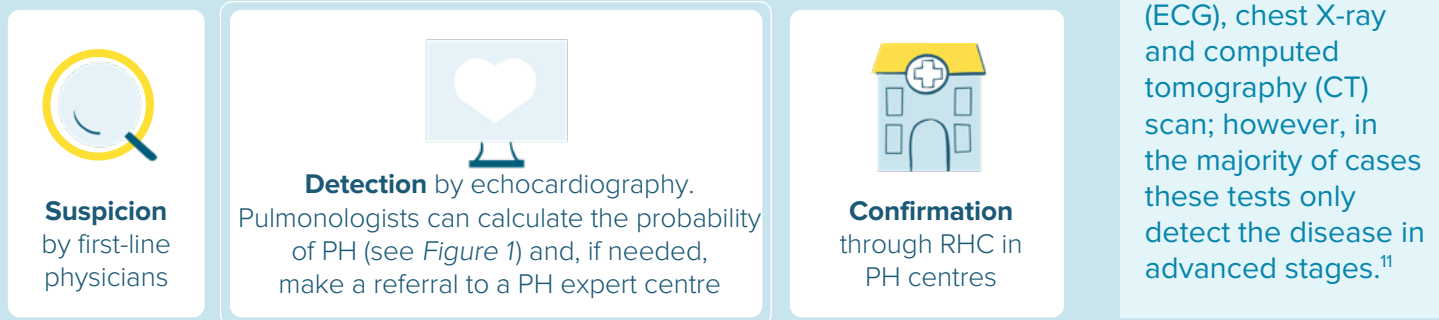
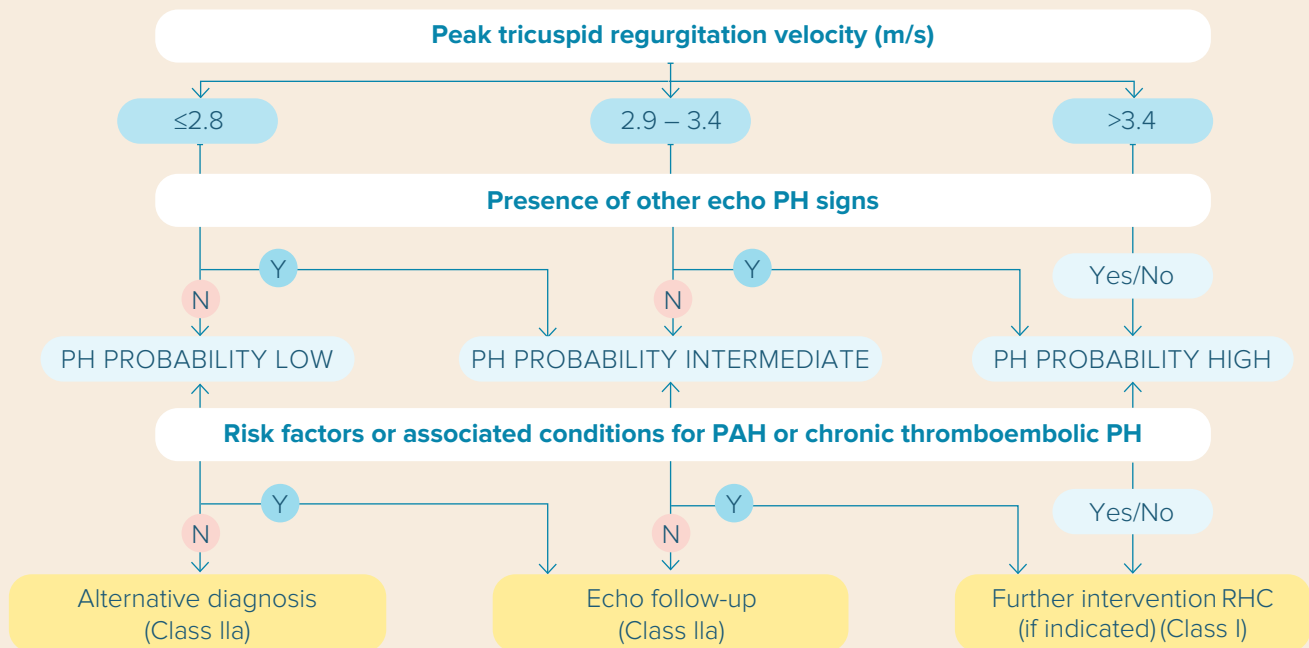


Figure 1. Echocardiographic probability of PH in symptomatic people with a suspicion of PH, and further assessment¹



Not for use in clinical decision-making; please see disclaimer below.

ACTIONS FOR THE EARLY DETECTION OF PH

Integrate PH in existing protocols for breathlessness and the conditions that are commonly misdiagnosed e.g. COPD, asthma, heart failure, anxiety and deconditioning.

Develop national guidelines and establish clinics for the systematic screening of people with breathlessness, with the inclusion of PH as a potential diagnosis.

As the community invests in the implementation of AI (e.g. electronic medical records, imaging), **include PH red flags** in imaging and algorithms to alert healthcare professionals.

The information in this resource is not intended for use in clinical decision-making. Please refer to the latest formal guidelines in your country or region.

This document is not intended as educational material. The information is based on clinical guidelines to ensure accuracy, but it is for advocacy purposes only to assist multidisciplinary audiences in taking action on the topic.

REFERENCES

- Humbert M, Kovacs G, Hoeper MM, et al. 2022. *Eur Heart J* 43(38): 3618-731
- Small M, Perchenet L, Bennett A, et al. 2024. *Ther Adv Respir Dis* 18: 17534666231218886
- Cullivan S, Higgins M, Gaine S. 2022. *Breathe (Sheff)* 18(4): 220168
- Bylica J, Waligóra M, Owsianka I, et al. 2020. *Kardiol Pol* 78(7-8): 750-52
- Armstrong I, Rochnia N, Harries C, et al. 2012. *BMJ Open* 2(2): e000806
- Runheim H, Kjellström B, Beaudet A, et al. 2023. *Pulm Circ* 13(1): e12190
- DuBrock HM, Germack HD, Gauthier-Loiselle M, et al. 2023. *Pharmacoecoon Open*: 10.1007/s41669-023-00453-8
- Tsang Y, Panjabi S, Funtanilla V, et al. 2023. *Pulm Circ* 13(2): e12218
- McConnell J, Bilir SP, Xu Y, et al. 2023. *J Med Econ* 26(1): 1349-55
- Chang KY, Duval S, Badesch DB, et al. 2022. *J Am Heart Assoc* 11(9): e024969
- Calderaro D, Alves Junior JL, Fernandes C, et al. 2019. *Arq Bras Cardiol* 113(3): 419-28

The **Health Policy Partnership**

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