

## Review Form 1.6

Journal Name:	<a href="#">Asian Journal of Cardiology Research</a>
Manuscript Number:	Ms_AJCR_77407
Title of the Manuscript:	<b>Pulmonary Hypertension: Mechanisms, Investigations and Management</b>
Type of the Article	<b>Review Article</b>

### **General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://peerreviewcentral.com/page/manuscript-withdrawal-policy>)

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**PART 1: Review Comments**

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p><b>Compulsory</b> REVISION comments</p>	<ul style="list-style-type: none"> <li>○ Language edition is critically needed as paper contains many grammatical mistakes. The most of content should be re-written.</li> <li>○ Content should be improved including deeper discussion of specific topics (too many generalization used by authors).</li> <li>○ Currently there are some critical errors in the manuscript:               <ul style="list-style-type: none"> <li>○ lung biopsy in PH is contraindicated,</li> <li>○ warfarin does not lower blood pressure,</li> <li>○ digoxin and its mechanism is messed,</li> <li>○ diuretics reducing “work” of heart?,</li> <li>○ atrial septostomy is not open heart surgery</li> </ul> </li> <li>○ The quality of article's scientific is low and is rather a patient brochure.</li> <li>○ Company names of drugs should be removed, e.g. Flolan, Travleer, Adempas etc. as they are advertising central companies who are competing in the market</li> </ul>	
<p><b>Minor</b> REVISION comments</p>	<ul style="list-style-type: none"> <li>• p 3. Please correct “Pulmonary hypertension is defined as pulmonary arterial pressure <b>greater than 25 mm Hg</b> at rest or during exercise, usually characterized by a persistent and sustained increase in pulmonary vascular resistance leading to right ventricular failure.”</li> <li>• P. 4 please correct thromboendarterectomy (PTE) to endarterectomy (PEA). PTE is no longer in use nowadays.</li> <li>• “This type of PH is different because it can be treated with pulmonary thromboendarterectomy (PTE) surgery to remove <b>blood clots</b>.”               <ul style="list-style-type: none"> <li>○ Should be “To remove thromboembolic material.” Removing blood blots is called embolectomy not endarterectomy.</li> </ul> </li> <li>• “Hemoptysis is usually secondary to the origin of the tracheal artery.”               <ul style="list-style-type: none"> <li>○ It is caused by anastomoses from bronchial arteries.</li> </ul> </li> <li>• “A blood test can help diagnose the cause of high blood pressure in the lungs or detect symptoms (14).”               <ul style="list-style-type: none"> <li>○ I can not agree with this statement. Blood tests do not help much to diagnose the cause, neither are useful to detect symptoms. Symptoms occur before patient enter diagnostic path. This should be rewritten.</li> </ul> </li> <li>• “These non-invasive tests show electrical patterns of the heart and may detect abnormal heartbeat. An ECG may also reveal signs of enlargement of the right ventricle or <b>depression</b>”               <ul style="list-style-type: none"> <li>○ What depression? ST depressions? If yes this should be rewritten. I also encourage to elaborate on causes of RV strain (i.e. please find some explanation and consider citing: J Clin Med. 2021 May 16;10(10):2147)</li> <li>○ Please note there are other signs of PH in ECG: RA enlargement, axis deviation, qR pattern</li> </ul> </li> <li>• “This may indicate the size and <b>hardness</b> of the right ventricle, and the pressure <b>on</b> the pulmonary arteries.”               <ul style="list-style-type: none"> <li>○ Hardness of right ventricle?</li> <li>○ Pressure in pulmonary arteries can only be estimated and is called RVSP</li> </ul> </li> <li>• “If you take this test, you may be asked to wear a mask that tests how well your heart and lungs use oxygen and carbon dioxide.”               <ul style="list-style-type: none"> <li>○ I completely do not understand meaning of this sentence. What mask? What for? Do you mean exercise echo with ergospirometry? If yeas, please bear in mind this is not standard procedure and used only for scientific purposes.</li> </ul> </li> <li>• “The right heart catheter enables doctors to directly measure large pulmonary arteries and right ventricular pressure.”               <ul style="list-style-type: none"> <li>○ Pulmonary arteries are not routinely measured through right heart cath. Authors probably meant pressures.</li> </ul> </li> <li>• “In this test, a tracer is injected into a vein in the arm. The tracer shows blood flow and airflow to</li> </ul>	

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	<p>the lungs.”</p> <ul style="list-style-type: none"> <li>○ Injected tracer only shows blood flow. You need patient to inhale gas to show ventilation scan.</li> <li>• “Rarely, a physician may recommend an open-lung biopsy to diagnose the possible cause of high blood pressure. An open-lung biopsy is a type of surgery in which a small sample of tissue is removed from the lungs”             <ul style="list-style-type: none"> <li>○ Lung biopsy is ABSOLUTELY contraindicated in patient with pulmonary hypertension even if you suppose PVOD.</li> </ul> </li> <li>• “Blood vessel dilators (vasodilators)”             <ul style="list-style-type: none"> <li>○ This section should be renamed to PGI analogues. They all represent very similar side effect pattern so there is no need for unnecessary repeating headaches.</li> </ul> </li> <li>• “These drugs reverse the effect of endothelin, a substance in the walls of blood vessels that causes it to shrink.”             <ul style="list-style-type: none"> <li>○ They block effects of endothelin rather than reversing.</li> </ul> </li> <li>• “Although calcium channel blockers may work, only a small number of people with high blood pressure in the lungs develop as they take them”             <ul style="list-style-type: none"> <li>○ This sentence needs rewriting.</li> </ul> </li> <li>• P. 11:  Warfarin lowers blood pressure.”             <ul style="list-style-type: none"> <li>○ No it does not.</li> </ul> </li> <li>• Digoxin (Lanoxin) This medicine helps the heart to beat faster and pumps more blood.             <ul style="list-style-type: none"> <li>○ No it does not. Digoxin slows cardiac rhythm.</li> </ul> </li> <li>• It can help control irregular heartbeats (arrhythmias)             <ul style="list-style-type: none"> <li>○ Please elaborate on this sentence, as there is no evidence for an arrhythmic effect of digoxin in PH.</li> </ul> </li> <li>• Diuretics. These drugs, known as water tablets, help the kidneys pass excess water. This reduces the <b>work</b> of the heart.             <ul style="list-style-type: none"> <li>○ How do they reduce work?</li> </ul> </li> <li>• Breathing fresh oxygen is sometimes recommended as a treatment for hypertension in the lungs, especially <b>for those who are living</b> or having difficulty sleeping.             <ul style="list-style-type: none"> <li>○ This sentence does not make any sense</li> </ul> </li> <li>• Atrial septostomy. This open heart surgery may be recommended if the drug does not control the signs and symptoms of pulmonary hypertension.             <ul style="list-style-type: none"> <li>○ It is not open heart surgery. It is performed the same way as RHC.</li> </ul> </li> </ul>	
<p><b>Optional/General</b> comments</p>	<p>Language improvement is critically necessary due to numerous grammar mistakes and unnecessary repetitions.</p> <p>Repetitions to be fixed:</p> <ul style="list-style-type: none"> <li>• These include pulmonary artery rupture <b>and rupture</b></li> <li>• Blood thinners increase the risk of bleeding, especially in those undergoing surgery <b>or surgery</b>.</li> </ul> <p>Colloquialisms should also be avoided:</p> <ul style="list-style-type: none"> <li>• i.e. , the arteries and veins are not as <b>strong</b> and tight as in WHO group 1</li> <li>• <b>problems</b> with <b>compression</b> or relaxation of the heart</li> <li>• CTEPH can occur when the <b>body is unable</b> to dissolve blood clots in the lungs.</li> <li>• Echocardiography allows doctors to see how well the heart and its valves are working.</li> <li>• <b>Cardiologists will</b> insert a small, flexible catheter into the vein, usually the <b>groin</b>.</li> <li>• The right heart catheter enables <b>doctors</b> to directly measure large pulmonary arteries and right ventricular pressure.</li> <li>• A <b>dye</b> (important difference) can be injected into the blood vessel before the CT scan to make the arteries more visible in the image             <ul style="list-style-type: none"> <li>○ Its called contrast agent and is used to visualize embolic material in large arteries (proximal).</li> </ul> </li> <li>• These medications may improve <b>energy levels</b> and symptoms.             <ul style="list-style-type: none"> <li>○ This is absolutely trash sentence.</li> </ul> </li> </ul>	

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**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

Name:	<b><i>Marcin Waligóra</i></b>
Department, University & Country	<b><i>Jagiellonian University Medical College, Poland</i></b>