

# Pulmonary Arterial Hypertension (PAH): Assessing Patient Risk\*

Determinants of Risk	Lower Risk	Higher Risk
Clinical Evidence of RV Failure	No	Yes
Progression	Gradual	Rapid
WHO Functional Class	II, III	IV
6MWD	Longer (>400 m)	Shorter (<300 m)
BNP	Minimally elevated	Very elevated
Echocardiographic Findings	Minimal RV dysfunction	Pericardial effusion  Significant RV dysfunction
Hemodynamics	Normal/near normal RAP and CI	High RAP, low CI

**RV**=right ventricular; **WHO**=World Health Organization; **6MWD**=6-minute walk distance; **BNP**=brain natriuretic peptide; **RAP**=right artery pressure; **CI**=cardiac index.

\*Adapted from McLaughlin VV, McGoon MD. Pulmonary arterial hypertension. *Circulation*. 2006;114:1417-1431.

Courtesy of



# Therapeutic Goals and Treatment Algorithm for PAH Therapy\*

## Key Treatment Goals

- ✓ Improve quality of life and survival
- ✓ Improve to Functional Class I or II
- ✓ Improve 6MWD (to  $\geq 380$  m)
- ✓ Improve hemodynamics
- ✓ Alleviate symptoms

## Treatment Algorithm

### PATIENTS AT LOWER RISK

#### ORAL MEDICATION

ETRA  
PDE-5 Inhibitors



#### PROSTACYCLIN

Intravenous  
Inhaled  
Subcutaneous

Patients at lower risk are candidates for oral therapy. If treatment goals are not met within several months, consider graduating to prostacyclin.

### PATIENTS AT HIGHER RISK

#### PROSTACYCLIN

Intravenous  
Inhaled  
Subcutaneous

For patients at higher risk, consider infused therapy as first-line treatment.

ETRA=endothelin receptor antagonists; PDE-5=phosphodiesterase-5.

- General care consists of oral anticoagulants  $\pm$  diuretics  $\pm$  oxygen  $\pm$  digoxin
- Acute vasoreactivity testing helps identify candidates for calcium channel blockers
- If the patient is not considered vasoreactive, the above high- and low-risk algorithms help guide PAH-specific therapy selection

\*Adapted from McLaughlin VV, McGoon MD. Pulmonary arterial hypertension. *Circulation*. 2006;114:1417–1431.