

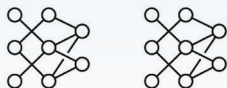
Can Deep Learning Using Chest Radiography Help Identify Pulmonary Hypertension (PH) and PH Associated With Congenital Heart Disease (CHD)?

STUDY DESIGN



Study Population

- **Training & Validation:** N = 4,576 (2,451 right heart catheterization [RHC], 2,288 PH)
- **Internal Test:** N = 2,140 (1,158 RHC, 1,070 PH)
- **External Test:** N = 90 (all RHC, 71 PH)



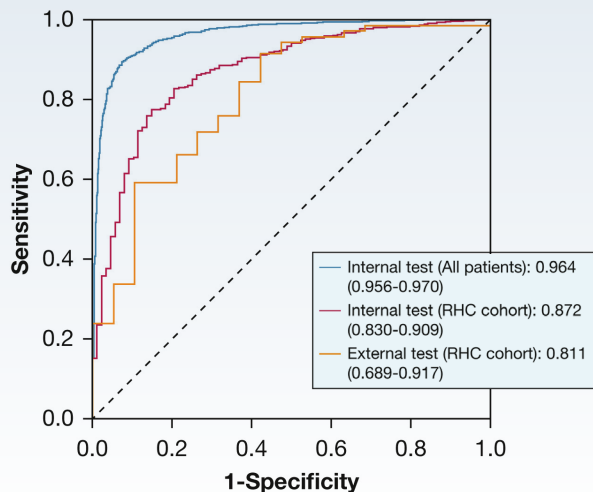
Deep Learning Models

CXR-PH-Net & CXR-CHD-PAH-Net

RESULTS

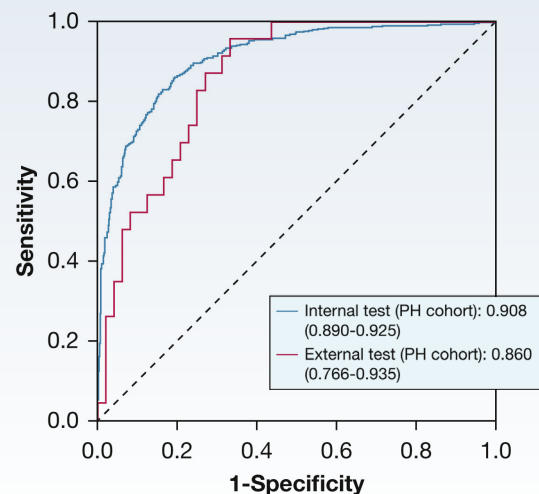
AUROC for PH Detection

Internal 0.964 | External 0.872



AUROC for CHD-PAH Detection

Internal 0.908 | External 0.860



CXR-PH-Net and CXR-CHD-PAH-Net demonstrated high sensitivity as screening tools for PH and CHD-associated pulmonary arterial hypertension, potentially facilitating early detection and triage for further evaluation, particularly in resource-limited settings.