

## A Meeting of Minds From Around the World



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Australia's national health system is similar to that of Canada and France."New Applications of Diagnostic Modalities," the theme of *Advances in Pulmonary Hypertension*, Winter 08-09, (Vol 7, No 4) is of great interest to us.

Echocardiography is respected as a screening test. There is also the potential (without much evidence yet) for meaning to come of estimated PA systolic pressure with exercise. We often use simple straight leg-raising on the bed for this. Echo in usual practice (not specialised labs) often overestimates PA systolic pressure and we rely totally on right heart catheterization (RHC) for the formal diagnosis of PAH.

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Where echo is normal, but there is suspicion that breathlessness is due to PAH in a predisposed group (eg, scleroderma patients), RHC will still be performed. Doppler imaging of strain is an improvement, but takes longer than a usual PAH echo and taxes our busy echo labs. Echo, nevertheless, is required every 6 months for continued national funding of drugs.

Right heart catheterization (RHC) remains our gold standard. Since our PAH unit overlaps with our heart transplant assessment unit, RHC is performed in the same way – as an outpatient procedure: no fasting, no cessation of warfarin, 30-minute procedure with challenge and thermodilution cardiac output. The right internal jugular approach is used with straight leg-raising on the table or with bicycle ergometry. All that is needed is a fluoroscopy unit and a nurse, obviating the need for a hospital bed and freeing up the cardiac catheter lab. Especially in older patients, RHC remains key. For Eisenmenger patients, however, we prefer to ask our catheter lab to perform RHC, since they can more readily perform the Fick method of cardiac output determination.

Cardiac MRI remains underutilised because of lack of funding for the PAH indication. We look forward in the future to using cardiac MRI to assess remodelling of the RV.

We hope that determination of vascular reactivity and, perhaps, modalities that can image the pulmonary arterial intima, media, and adventitia will eventually be developed to a level of clinical usefulness. ■