## Human resources for health: focusing on people with disabilities

Tom Shakespeare and colleagues (Nov 28, p 1815)1 suggest that the training of health professionals should become more disabilitysensitive than heretofore. This is certainly true, but the most significant challenge in training now facing us is not sensitising conventional health workers, such as doctors and nurses, but training a new cadre of disability rehabilitation professionals capable of implementing the new and ambitious community-based rehabilitation (CBR) quidelines to be launched this year.

These guidelines will require practitioners to work across disciplines and across health and related sectors (social welfare, employment, education) to address the five major components targeted in the guidelines: health, education, livelihoods, social development, and empowerment. This will require practitioners with a new, and broader, skill set than any profession can currently offer. But in low-income countries, where most people with disabilities live,2 we already have a chronic shortage conventionally trained nurses and physicians, with an estimated shortfall in sub-Sahara Africa alone of 800 000 by the target date of the Millennium Development Goals (2015).3

However, there is now cumulative and strong evidence for the effectiveness of task shifting to alternative—so-called mid-level or low-level—cadres.<sup>45</sup> We call for the development of a new cadre for implementing the new CBR guidelines, but stress that such a cadre, providing a broad skill mix, must have a stronger professional identity, better developed interconnections with other health workers, and a more supportive and motivating

work environment than has previously been characteristic of new cadres, in CBR and elsewhere, in low-income countries.

We declare that we have no conflicts of interest.

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- Shakespeare T, Iezzoni LI, Groce NE. Disability and the training of health professionals. Lancet 2009; 374: 1815–16.
- 2 MacLachlan M, Swartz L. Disability and international development: towards inclusive global health. New York: Springer-Verlag, 2009.
- Scheffler RM, Mahoney CB, Fulton BD, Dal Poz MR, Preker AS. Estimates of health care professional shortages in sub-Saharan Africa by 2015. Health Affairs 2009; 28: w849-62.
- 4 WHO. Mid-level health workers: the state of the evidence on programmes, activities, costs and impact on health outcomes. Geneva: World Health Organization, 2008.
- McCord C, Mbaruku G, Pereira C, Nzabuhakwa C, Bergstrom S. The quality of emergency obstetrical surgery by assistant medical officers In Tanzanian district hospitals. Health Affairs 2009; 28: w876–85.

## HORIZONS-AMI

The 12-month results of HORIZONS-AMI (Oct 3, p 1149)1 show that, in patients with ST-segment-elevation myocardial infarction (STEMI) undergoing primary percutaneous coronary intervention (PCI), anticoagulation with bivalirudin reduced net adverse clinical events and major bleeding at 1 year compared with heparin plus a glycoprotein IIb/IIIa inhibitor. The difference, evident almost immediately after the procedure, was due to reduced bleeding with bivalirudin. Very early, but not 12-month, stent thrombosis was increased in the bivalirudin group. Of interest, major adverse cardiac events were lower in those given a 600 mg clopidogrel loading dose than in those given 300 mg, irrespective of antithrombin treatment.2

Studies showing a benefit of glycoprotein IIb/IIIa inhibitors

in STEMI are from an earlier era. undertaken before the routine administration of thienopyridines in adequate loading doses. Two placebo-controlled trials3,4 assessed glycoprotein IIb/IIIa inhibitors in STEMI patients given aspirin and clopidogrel 600 mg. In the 800-patient BRAVE-3 study,3 abciximab had no beneficial effect on infarct size or clinical outcomes, and in the 400-patient ASSIST trial,4 eptifibatide did not reduce clinical events.

About 70% of major bleeding after primary PCI is associated with femoral access, and can be largely avoided by intervening via the radial artery.<sup>5</sup> To those of us selectively giving glycoprotein IIb/IIIa inhibitors and routinely using radial access for primary PCI, the benefits of bivalirudin seem modest.

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- Mehran R, Lansky AJ, Witzenbichler B. Bivalirudin in patients undergoing primary angioplasty for acute myocardial infarction (HORIZONS-AMI): 1-year results of a randomised controlled trial. Lancet 2009; 374: 1149-59.
- Stone GE, Witzenbichler B, Guagliumi G, et al. Bivalirudin during primary PCI in acute myocardial infarction. N Engl J Med 2008; 358: 2218–30.
- Mehilli J, Kastrati A, Schulz S, et al. Abciximab in patients with acute ST-segment elevation myocardial infarction undergoing primary percutaneous coronary intervention after clopidogrel loading: a randomized double-blind trial. Circulation 2009; 119: 1933-40.
- Le May MR, Wells GA, Glover CA, et al. Primary percutaneous coronary angioplasty with and without eptifibatide in ST-segment elevation myocardial infarction: a safety and efficacy study of integrilin-facilitated versus primary percutaneous coronary intervention in ST-segment elevation myocardial infarction (ASSIST). Circulation Cardiovasc Intervent 2009; 2: 330–38.
- Jolly SS, Amlani S, Hamon M, Yusuf S, Mehta SR. Radial versus femoral access for coronary angiography or intervention and the impact on major bleeding and ischemic events: a systematic review and meta-analysis of randomized trials. Am Heart J 2009; 157: 132-40.