

and this gap persisted between 2003 and 2011.<sup>2</sup> 13.8% of rural, and 10.9% of urban, households still experienced catastrophic health expenditure in 2011. Implementing the merger should focus on benefiting the poor in both urban and rural areas. Otherwise, pooling the urban and rural schemes has the potential to regressively benefit the urban rich, especially in areas with large urban-rural income gaps.

Third, the quality and effectiveness of health services under the integrated scheme should be consistent. Capacity building in rural health delivery systems needs to be emphasised, in addition to monitoring and assessment of health services from providers at different levels. The integration of the two schemes should also be coordinated with ongoing efforts to establish referral mechanisms among different levels of care.

Fourth, coverage for 274 million rural-to-urban migrants<sup>3</sup> should be given increased portability. With restrictions to claiming benefits in the cities in which they live, these migrants consistently underuse services in both their communities of origin and their destination cities.<sup>4</sup> The merger should either raise the level of pooling (eg, to provincial level) or develop specific policies on cross-regional transfer of entitlements.

Finally, achieving universal health coverage needs a further merger with the more generous scheme covering employees of the formal urban sector—the Urban Employee-based Basic Medical Insurance Scheme.<sup>5</sup>

We declare no competing interests.

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## Expectations of medical students in China

On Jan 11, 2016, the National Health and Family Planning Commission issued its guidance for standardised medical training.<sup>1</sup> This document proposed an additional 2–4 years of standardised, specialist training for junior doctors in China, to improve the quality of health care. Young doctors and medical students immediately voiced their fierce opposition to the new proposals, and their doubts about the benefits of the new training plan.

First, the efficiency and quality of standardised training are questionable. What junior doctors expect to gain from training is not simply a certificate, but the ability to independently tackle complex clinical problems, which is difficult under the existing training programme. The absence of detailed and specific course materials and assessment criteria make this training system more like a policy than a learning process.

Moreover, trainees have few practical opportunities during standardised training. Because of the deteriorated doctor-patient relations,<sup>2</sup> there is a fear of exposing trainees to verbal and physical abuse from patients, and clinical tutors can be reluctant to offer opportunities for trainees to practise their clinical skills. Therefore, trainees

are trapped doing simple, repetitive work in contrary to the initial goal of learning to solve clinical problems independently.

Low salaries prevent some young doctors and students from finishing this long-term training, which can last until the age of 30–35 years. Unlike the relatively high salary for junior doctors in many high-income countries, the average salary for trainee doctors in China is ¥2000 per month, which is low in comparison to the Consumer Price Index.<sup>3</sup> Insufficient subsidies from the government will, undoubtedly, cause the new generation of Chinese doctors to feel uncertain about the future of their careers.

Rigorous clinical practice and systematic training of young doctors is necessary to produce clinical specialists, so it is not wrong to put an emphasis on specialist training. However, merely increasing the time trainees spend in training is insufficient. As medical students, we are calling on the government to listen to us and to provide a promising career path for the doctors of today and tomorrow.

We declare no competing interests.

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## Bioresorbable coronary scaffolds should disappear faster

Why do bioresorbable scaffolds represent a revolution in percutaneous coronary intervention? Permanent



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coronary stents for a temporary situation (ie, scaffolding during healing) can lead to another disease such as in-stent restenosis or thrombosis, or neoatherosclerosis, due to a foreign body in the artery. Permanent metallic caging of the coronary artery increases the risk of in-stent restenosis or thrombosis. In 1998, the idea of transitory scaffolding emerged: a trial demonstrated the safety in humans of the first fully bioresorbable scaffold.<sup>1</sup> However, because of the L-lactic acid enantiomeric composition of the scaffold, the resulting poly(L-lactic acid) polymer (PLLA) degradation time exceeded the expected healing period, ie, 3 months.

Absorb (Abbott, USA), the first PLLA drug-eluting scaffold, was compared to its metallic equivalent, Xience (Abbott, USA), in a meta-analysis, with good results.<sup>2</sup> However, use in more complex lesions is limited because of its inability to be overexpanded. Moreover, complete disappearance of Absorb takes 3–4 years, which might lead to device-related complications.<sup>3</sup> Thus, if the concept of bioresorbable scaffolds replacing permanent stents is appealing, technical issues such as strut thickness (currently twice the thickness of the metallic strut) and issues such as duration of the scaffold lifetime must be considered. Bioresorbable scaffolds degrade in two steps: a first degradation that will dismantle the scaffold into pieces and results in cage opening (dismantling), and a second stage (bioresorption), which results in conversion of the polymer into CO<sub>2</sub> and H<sub>2</sub>O.

We postulate that at 3 months of effective scaffolding, scaffold dismantling is safe, feasible, and necessary. After 3 months, artery healing is over, and this is the end of angiographic late loss progression after balloon angioplasty in humans.<sup>4</sup> After balloon angioplasty, absence of scaffolding leads to negative or positive remodelling.<sup>5</sup> Scaffold dismantling should not be earlier than

3 months after implantation because healing has not happened, which can lead to negative remodelling, as shown with the first generation Biotronik magnesium scaffold. Disconnected struts resulting from dismantling are embedded, avoiding distal embolisation and ensuring mechanical support.

Why is it important to release the mechanical stress by dismantling the cage as early as possible? Early dismantling leads to mechanical stress disappearance of the artery wall, decreases blood flow disturbance, restores vessel vasomotion, and accelerates restitution of endothelial function throughout the scaffolded segment.<sup>5</sup> Arterial remodelling is controlled mainly by flow changes: increased flow results in positive remodelling.<sup>6</sup> There is an advantage for healing-related inflammation to coincide with dismantling-related inflammation via matrix remodelling: this would shorten the different episodes of transitory inflammation. Lastly, early dismantling results in earlier complete bioresorption, thus reducing events related to persistent foreign bodies in the artery wall.

In pigs, the occurrence of early programmed dismantling after polylactic acid) scaffold deployment was shown from 3 months, resulting in late lumen gain from 6 months.<sup>7</sup> Results of a study with Absorb<sup>8</sup> showed scaffold enlargement occurring after 12 months, then lumen enlargement between 13 and 18 months. In human beings, the Absorb exhibits lumen enlargement around 24 months after deployment. Among scaffolds, biomechanical stability is not synonymous with degradation speed, but is related to tuned polymer choice, synthesis, and processing technologies.

AL is the co-founder of Arterial Remodeling Technologies. JM-G declares no competing interests.

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## Department of Error

Howard G, Roubin GS, Jansen O, et al, on behalf of the Carotid Stenting Trialists' Collaboration. Association between age and risk of stroke or death from carotid endarterectomy and carotid stenting: a meta-analysis of pooled patient data from four randomised trials. *Lancet* 2016; **387**: 1305–11—In the abstract of this Article, the first sentence of the interpretation section should read "In these RCTs, CEA was clearly superior to CAS in patients aged 70–74 years and older". This correction has been made to the online version as of March 1, 2016.



Published Online  
March 1, 2016  
[http://dx.doi.org/10.1016/S0140-6736\(16\)00623-1](http://dx.doi.org/10.1016/S0140-6736(16)00623-1)