

rate data derived from clinical trials. We agree with these sentiments and designed the GEIS harmonised artesunate–mefloquine clinical trials with those needs in mind.

All authors were equally involved in the drafting and reviewing of this manuscript. Authors are the designated representatives from their respective institutions. The GEIS has a scientific coordination role in the preparation and execution of the clinical trials at the four Department of Defence network laboratories. DS, CD, AL, and BA are investigators involved in these harmonised trials at each of the four sites, and represent laboratory staff that have contributed substantially and equally to the development of the harmonised trial protocols and other study documents. All representatives have contributed to this manuscript and have consented to its submission to *The Lancet Infectious Diseases*. The Armed Forces Health Surveillance Center (AFHSC) sponsors the harmonised malaria drug-resistance trials mentioned in this paper. Authors were not funded specifically to write or edit this article.

*David Saunders, Christopher Duplessis, Andres Lescano, Ben Andagalu, Alaina Thomas, Mark Fukuda, James Cummings on behalf of the US DoD Malaria Surveillance Investigators Group*  
alaina.c.thomas.ctr@mail.mil

Armed Forces Research Institute of Medical Sciences (AFRIMS), Bangkok, Thailand (DS); Global Emerging Infections Surveillance and Response System (GEIS), Silver Spring, MD, USA (AT, MF, JC); US Naval Medical Research Unit 3 (NAMRU-3 Ghana Detachment), Accra, Ghana (CD); US Naval Medical Research Unit 6 (NAMRU-6), Lima, Peru (AL); and US Army Medical Research Unit-Kenya (USAMRU-K), Nairobi, Kenya (BA)

- 1 Amaratunga C, Sreng S, Suon S, et al. Artemisinin-resistant *Plasmodium falciparum* malaria in Pursat province, western Cambodia: a parasite-clearance-rate study. *Lancet Infect Dis* 2012; **12**: 851–58.
- 2 Talisuna A, Karema C, Ogutu B, et al. Mitigating the threat of artemisinin resistance in Africa: improvement of drug-resistance surveillance and response systems. *Lancet Infect Dis* 2012; **12**: 888–96.
- 3 Noedl H, Se Y, Schaefer K, Smith BL, Socheat D, Fukuda MM. Evidence of artemisinin resistance in western Cambodia. *N Engl J Med* 2008; **359**: 2619–20.
- 4 World Health Organization. Global report on antimalarial drug efficacy and drug resistance: 2000–2010. <http://www.who.int/malaria/publications/atoz/9789241500470/en/index.html> (accessed Nov 12, 2012).
- 5 Rogers WO, Sem R, Tero T, et al. Failure of artesunate–mefloquine combination therapy for uncomplicated *Plasmodium falciparum* malaria in southern Cambodia. *Malar J* 2009; **8**: 10.
- 6 Stepniewska K, Ashley E, Lee S, et al. In vivo parasitological measures of artemisinin susceptibility. *J Infect Dis* 2010; **201**: 570–79.

- 7 Flegg JA, Guerin PJ, White NJ, Stepniewska K. Standardizing the measurement of parasite clearance in falciparum malaria: the parasite clearance estimator. *Malar J* 2011; **10**: 339.
- 8 Worldwide antimalarial resistance network. Parasite clearance estimator. 2011. <http://www.wwarn.org/research/parasite-clearance-estimator> (accessed Nov 12, 2012).

## Ultrasonography in diagnosis of pulmonary hydatid cysts

We read with great interest the comprehensive Review by Kerstin Wahlers and colleagues<sup>1</sup> on cystic echinococcosis in sub-Saharan Africa. The investigators declared that some patients with hydatid cyst might have been overlooked or misdiagnosed because of limitations of the diagnostic techniques. The researchers referred to ultrasonography as a method unable to diagnose cases of pulmonary hydatid cyst.<sup>1</sup> Although ultrasonography is used routinely for diagnosis of hepatic cystic echinococcosis, a few indications for ultrasound in the detection of pulmonary hydatid cysts also exist.

In patients with peripheral pulmonary opacities with horizontal line (air-fluid level), ultrasound could be used to diagnose lung abscesses and masses associated with fluid and consolidation. This scan could be done in patients in a sitting or semi-sitting position.<sup>2</sup> Therefore, ultrasonographic examination might provide proper imaging of pulmonary hydatid cysts adjacent to the chest wall.<sup>3</sup> Furthermore, ultrasonography is of great assistance in clinically suspicious cases, and the data needed for precise diagnosis could be provided by this method.<sup>4</sup> Additionally, specific ultrasonographic markers (eg, double-layered internal septum) have been suggested to be highly specific in the diagnosis of pulmonary echinococcal cysts.<sup>5</sup>

Although other highly sensitive and specific (and more expensive)

methods are more reliable and less operator-dependent than ultrasound for the diagnosis of pulmonary hydatid cysts, the scarcity of these methods in developing countries is a major concern. Therefore, non-invasive and cost-effective imaging methods such as ultrasonography should not be overlooked for the diagnosis of pulmonary hydatid cysts. Accordingly, appropriate ultrasonographic criteria should be developed for more accurate and reliable diagnosis.

We declare that we have no conflicts of interest.

*Samad E J Golzari, Mohsen Sokouti, Alireza Ghaffari, Amir Mohammad Bazzazi, Kamyar Ghabili*  
kghabili@gmail.com

Cardiovascular Research Centre (SEJG), Department of Cardiovascular Surgery (MS), Medical Philosophy and History Research Centre (AG), Physical Medicine and Rehabilitation Research Centre (KG), Tabriz University of Medical Sciences, Tabriz, Iran; and Department of Neurosurgery, Urmia University of Medical Sciences, Urmia, Iran (AMB)

- 1 Wahlers K, Menezes CN, Wong ML, et al. Cystic echinococcosis in sub-Saharan Africa. *Lancet Infect Dis* 2012; **12**: 871–80.
- 2 Yang PC, Luh KT, Lee YC, et al. Lung abscesses: US examination and US-guided transthoracic aspiration. *Radiology* 1991; **180**: 171–75.
- 3 Santivanez S, Garcia HH. Pulmonary cystic echinococcosis. *Curr Opin Pulm Med* 2010; **16**: 257–61.
- 4 Ramos G, Orduña A, García-Yuste M. Hydatid cyst of the lung: diagnosis and treatment. *World J Surg* 2001; **25**: 46–57.
- 5 El Fortia M, El Gatit A, Bendaoud M. Ultrasound wall-sign in pulmonary echinococcosis (new application). *Ultraschall Med* 2006; **27**: 553–57.

## Surviving sepsis in an intermediate care unit

The Surviving Sepsis Campaign, which began in 2003, was a milestone in the treatment of sepsis worldwide. Different approaches to goal-directed therapy proposed by medical centres in Europe and the USA were recently described by Mitchell Levy and colleagues in terms of length of stay, overall mortality, and allocation of