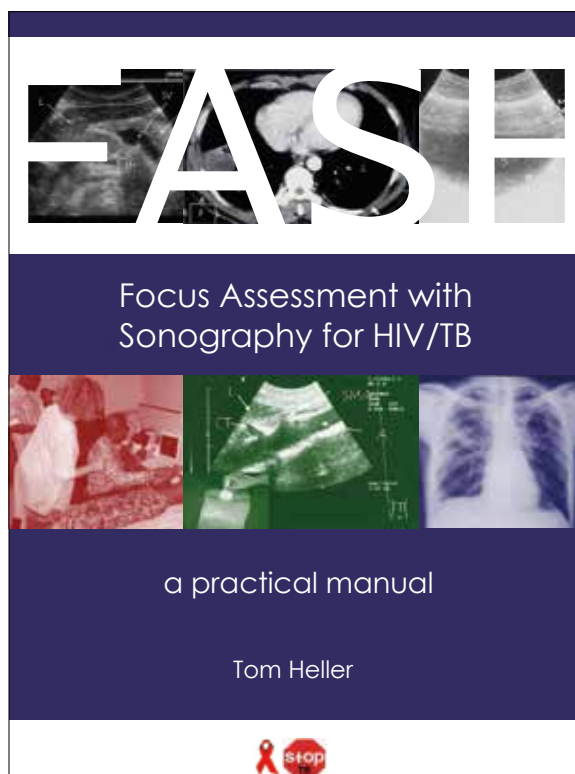


**BOOK REVIEW****'FASH – Focused Assessment with Sonography for HIV/TB – a practical manual'**

by Tom Heller. London, UK: Teaching-Aids at Low Cost (TALC), 2013. ISBN: 978-0-9558811-8-3.



The emergence of high quality, yet affordable portable ultrasound devices during the past decade has brought the ultrasound examination out of imaging services to the patients' bedside. Point-of-care (POC) ultrasound is increasingly practised throughout various medical disciplines. Simplified and targeted ultrasound protocols, applied by the attending clinician or medical staff, allow instantaneous assessment of clinically relevant questions. Time to diagnosis can be shortened, referrals can be avoided, and resources can be saved. POC ultrasound requires little training and is a safe and effective tool, with particular value for resource-limited settings where imaging modalities are often restricted.

Extra-pulmonary tuberculosis (EPTB) is common in HIV-infected individuals, but diagnosis is a challenge, especially where access to adequate imaging diagnostics is limited. The value of ultrasound for diagnosing EPTB has long been recognised, but its availability in primary care settings, where most HIV/TB-infected patients are seen, often remains restricted by the absence of appropriate equipment and/or radiological expertise.

In 2010, infectious diseases physician and ultrasound expert, Tom Heller, developed 'Focused Assessment with

Sonography for HIV/TB (FASH)' as a POC ultrasound protocol to improve the diagnosis of EPTB in HIV-positive patients. It evolved on the basis of multiple years of experience in a rural district hospital in Hlabisa, South Africa. FASH was a success thereafter: throughout the world, and especially in Southern Africa, FASH was taught in short courses for practitioners working in the field. By now, Heller's method is an integral part of the emergency POC ultrasound curriculum for Emergency Medicine trainees in South Africa and one of the most frequently taught modules in the country.

The practical manual, *FASH – Focused Assessment with Sonography for HIV/TB*, comprises 84 pages and includes a CD. The book is organised in 13 chapters. The first three encompass a concise introduction to POC ultrasound, the HIV/TB pandemic, as well as the basics of ultrasound physics and ultrasound anatomy of the abdomen. Seven core chapters address the bedside ultrasound evaluation of the main areas of interest in the context of HIV and TB: effusions, lymphadenopathy, spleen, liver, chest, EPTB and the heart. Three final chapters deal with other HIV-related pathologies, deep vein thrombosis and interventional ultrasound.

Chapters are well structured, allowing easy orientation through the sections of anatomy, normal ultrasound findings, pathophysiology of HIV/TB, differential diagnoses, diagnostic tests, clinical implications, tips and pitfalls, and references for further reading. All chapters are illustrated with ultrasound images that include probe positions, corresponding X-ray, computed tomography and/or magnetic resonance imaging findings, and coloured schematics to simplify learning. Besides a digital copy of the manual, the CD provides video clips of both normal anatomy and pathological findings. The latter is a particularly useful addition for learners, as visual memory is the most helpful aid at the bedside.

In summary, this low-cost manual is a comprehensive guide for practitioners in the field, providing very helpful instruction on bedside ultrasound evaluation even beyond the context of HIV/TB. Applying FASH on an everyday basis in the hospital, I wish to encourage practitioners to adopt 'the concept of ultrasound as the stethoscope of the 21st century.' The manual will be a very useful companion!

**S Bèlard, MD, MSc, DTM&H**

*Institute of Infectious Disease and Molecular Medicine  
Faculty of Health Sciences, University of Cape Town  
South Africa*

*sabine.belard@uct.ac.za*