Erik Sloth from Aarhus University Hospital, Skejby, Denmark, proposed Focused Assessed Transthoracic Echocardiography (FATE) in 2004. In 2010, there was a revision of the FATE protocol to include an extended FATE examination (extended views) by his group. FATE is a rapid and systematic protocol for cardiopulmonary screening and monitoring. Many other models and protocols have been described.

In South Africa, we have been slow to catch up with the perioperative/emergency echocardiography developments that have taken place in Europe and North America. It is refreshing and reassuring to see that the first guest editorial paper on echocardiography by Anthony Keene was published in a recent edition of SAJAA. We need to follow this up with quality research papers from our large amount of clinical material. South African anaesthetists need to form a perioperative echocardiography interest group and a local accreditation process should be put in place. Cholley and colleagues has described a skills pyramid in which they describe the different levels of competence that echocardiographers can possess. We can simplify this by classifying echocardiographers in basic and advanced operators.

Focused echocardiography is the attempt by a trained echocardiographer to make a diagnosis, or to confirm a clinical diagnosis, with a transthoracic or transoesophageal echocardiogram, as quickly and efficiently as possible during an emergent event. The focused exam can take place anywhere in the acute medical practice setting using different types of echo machines. FATE proposes examination through the four probe positions in the most convenient way possible for the specific clinical situation and suggests that the examination should include the following steps:

1. Excluding obvious pathology;
2. Assessing wall thickness and dimensions of chambers;
3. Assessing contractility;
4. Imaging pleura on both sides;
5. Relating the information to the clinical context;
6. Applying additional ultrasound (extended FATE).

Patients with differing pathologies in different situations will be encountered. The spectrum of patients can include the undiagnosed patient with a critical aorta stenosis murmur for an urgent urological procedure during the evening, or the peri-arrest/cardiac arrest victim in the operating theatre or ward/ICU. A focused exam is guided by the clinical information and the specific situation. In the stable patient, the examination can include a full standard echocardiography examination two-dimensional, Doppler, or even three-dimensional. The emergency echo during a resuscitation attempt is much more problem-orientated (focused) and the need to keep the no-flow/no-compression interval as short as possible must be part of the technique/protocols. Both the above examinations require special skills from the echocardiographer and the attending team. During an examination you might only be able to acquire limited views and limited information. During a cardiac arrest, implementation of the echocardiograph is a team effort and it should be practiced in advance.

Conclusion

Perioperative emergency and standard/comprehensive echocardiography is a skill that can be mastered by all of us. The level of skill and competence will be determined by our working environment.
References