

Ultrasound is a form of non-ionizing radiation that uses high-frequency sound waves to image the body. It is a real-time investigation which allows assessment of moving structures and also facilitates measurement of velocity and directionality of blood flow within a vessel” Powles et al (2018).

Abstract:

Ultrasound is a form of non-ionizing radiation that uses high-frequency sound waves to image the body. It is a real-time investigation which allows assessment of moving structures and also facilitates measurement of velocity and directionality of blood flow within a vessel. It can be used for a variety of purposes in the intensive care setting, for example to aid central venous catheter and pleural drain insertion. When using this imaging modality it is vital to understand the relevant physical principles and how the images are created. This article will explain these principles, including the use of Doppler ultrasound and the interpretation of common artefacts.

Reference:

Powles, A.E.J., Martin, D.J., Wells, I>T>P and Goodwin, C.R. (2018) Physics of ultrasound. Anaesthesia and Intensive Care Medicine. March 9th. .

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