

Lecture and Lab summary

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Hyperglycaemia in critical illness

Elevated blood glucose concentrations are not uncommon in non-diabetic critically ill patients, and these are known to be associated with an increased mortality. This lecture will recap glucose regulation in healthy individuals, review the mechanisms responsible for hyperglycaemia in illness and its consequences, and consider human and veterinary evidence-based treatments.

Blood gas, Electrolytes and Acid base Workshop

In this interactive workshop, attendees will learn a systematic approach to the interpretation of venous and arterial blood gas analysis, acid-base disorders, and electrolyte abnormalities commonly encountered in the critically ill patient. An introductory lecture will review how acid-base homeostasis is maintained in the body. The principles of arterial blood gas analysis will be also discussed, introducing measures to evaluate oxygenation such as A-a gradient and PaO₂/FiO₂ relationships. In the second part of the lab, attendees will work through case-based examples of electrolyte and acid-base disorders, assess patient oxygenation, develop patient treatment plans, and get feedback from the instructors.