

Venous lactate

Venous lactate

Venous lactate is a useful marker of resuscitation and physiological state. A normal lactate (<2 mmol/L) is a sign that the patient is probably resuscitated and suitable for ETC. An elevated lactate (>3 mmol/L) suggests the patient is under-resuscitated and should either have a period of further resuscitation or DCS if surgery is urgent. If a patient's lactate is noted and the other physiological markers considered to determine whether the patient is suitable for definitive surgical procedures. The identification of patients suitable for ETC versus DCS should be made by senior surgeons and anaesthetists/critical care doctors. This may be an easy decision, for example the haemodynamically unstable patient with intra-abdominal bleeding will always undergo rapid damage control laparotomy. In other cases a careful review of the patient's physiology and coagulation state will be required. Summary box 27.6 Venous lactate is an essential marker of resuscitation. The early assessment and management of trauma patients should follow established ATLS principles. A WBCT scan, from the head to the pelvis, with IV contrast is the gold standard investigation for major trauma patients and should be performed early and whenever possible. Warmed blood and blood products in a 1:1:1 ratio of blood : plasma : platelets should be used with tranexamic acid in the early resuscitation of haemodynamically unstable trauma patients. Trauma patients requiring surgery should have an early decision made whether a damage control or ETC approach is required. Surgical procedures in physiologically compromised patients should be limited to those required to save the life and/or limb of the patient, while simultaneous resuscitation is continued.

<2 mmol/L - ETC $2-3$ mmol/L - look at the trend (increasing or decreasing)

“ 3 mmol/L - may be under-resuscitated; should either have further resuscitation or DCS if surgery is urgent 5 mmol/L - DCS (see Chapters 26 and 29)

Revision #1

Created 2025-12-31 15:12:13 UTC by Omar Ayman

Updated 2025-12-31 15:12:13 UTC by Omar Ayman