

The Benefits of Dry Balanced Lithium-zinc Heparin for Arterial Blood Gas/Electrolyte and Metabolite Testing

siemens-healthineers.com/atellica-vtr



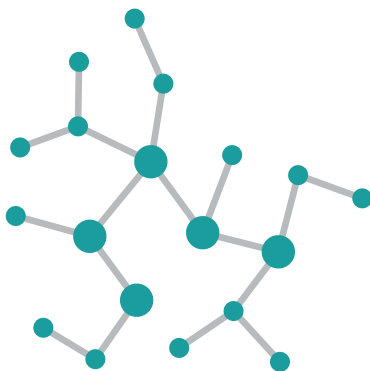
Q What is balanced lithium-zinc heparin?

A Balanced lithium-zinc heparin is a type of anticoagulant commonly used in many arterial blood gas syringes on the market today.

Q What is the benefit of adding zinc to lithium heparin?

A A study of lithium-zinc heparin versus lithium heparin alone found that the lithium-zinc heparin formulation produced *"no calcium-dilution effect at very low or very high concentrations of ionized calcium...and in summary lithium-zinc heparin appears to have virtually no effect on ionized calcium results".*¹

Additionally, the researchers found *"no evidence to indicate that the effect of Li-Zn heparin is altered in any way by whole-blood samples with low protein content."*¹

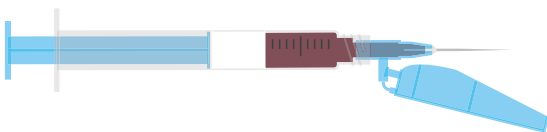


Q What type of heparin is used in the Atellica® VTR syringes?

A The new Atellica VTR syringes contain a dry-sprayed, balanced lithium-zinc heparin formulation of bovine origin.

Q What is the difference between balanced lithium-heparin and balanced lithium-zinc heparin?

A Balanced lithium-zinc heparin has been shown to affect ionized calcium (iCa^{++}) results less than balanced lithium heparin formulations alone.¹ This design reduces the potential for pre-analytical errors with virtually no impact on electrolytes.



Q Is balanced lithium-zinc heparin new?

A No. Balanced lithium-zinc heparin is not a new anticoagulant formulation. It has been available for at least three decades and is sold worldwide.

Q Has Siemens Healthineers tested the balanced lithium-zinc heparin anticoagulant formulation of the Atellica VTR syringes versus the RAPIDLyte[®] lithium heparin formulation on the RAPIDPoint[®], RAPIDLab[®], and epoc[®] Blood Analysis systems?

A Yes. The two anticoagulants have been tested side by side with no differences in results. Analytes tested include pH, pCO_2 , pO_2 , Na^+ , K^+ , iCa^{++} , Cl^- , hematocrit, glucose, lactate, creatinine, BUN/urea, measured TCO_2 , CO-oximetry, and total hemoglobin.

1. Toffaletti J, Thompson T. Effects of blended lithium-zinc heparin on ionized calcium and general clinical chemistry tests (letter to the editor). *Clin Chem*. 1995;41(2).

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