June 11, 2014

To: Chiefs of Service, Attending Physicians, Housestaff, Nurses and Other Concerned Personnel

From: Clayton Hooper, RN
Manager, POCT Program

Alan Wu, PhD
Director, Clinical Chemistry

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Director, Clinical Laboratory

Re: Point of Care Glucose Testing Alert

This is to alert you that point of care fingerstick glucose testing may yield unreliable results when performed on patients in hypotensive shock, in those with massive edema, or in patients on multiple vasopressors. The common explanation for this is decreased blood flow to the skin. This may result in capillary glucose readings that are significantly different (higher or lower) when performed by point of care fingerstick glucose meters than glucose results obtained on venous or arterial blood by analyzers in the central laboratory.

Therefore, do not rely on point of care fingerstick glucose testing in these conditions; rather, for these patients, please send a venous or arterial blood sample directly to the clinical laboratory for glucose testing.

The U.S. Food and Drug Administration (FDA) and Centers for Medicare and Medicaid Services (CMS) are currently reviewing this matter, and may issue further guidance and/or regulations to ensure patient safety. We will notify you if and when this occurs.

For questions or concerns, please contact Dr. Eberhard Fiebig by phone (x68588) or email (efiebig.ucsf.edu).

Selected References

Full text .pdfs of the publications cited above are available at http://labmed.ucsf.edu/sfghlab/test/PointOfCare.html