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## **Skin Disinfectants for Blood Gas Samples Tested on the RAPIDPoint® 405/500 Systems**

### **Recommendation**

Siemens Healthineers recommends using skin disinfecting products that do not contain benzalkonium, other quaternary ammonium compounds, silver sulfadiazine or chlorhexidine when obtaining a sample to be tested on the RAPIDPoint® 405/500 systems. Isopropyl alcohol wipes are an acceptable alternative as long as they do not contain the disinfectants listed above.

### **Background**

Many disinfectant sprays and wipes contain benzalkonium chloride or chlorhexidine that may interfere with some RAPIDPoint 405/500 system sensors. Benzalkonium is an organic salt classified as a quaternary ammonium compound. Quaternary ammonium compounds found in various cleaners including skin disinfectants can affect some sensors, significantly impacting results and causing calibration errors.

Any cleaning agents that contain benzalkonium, other quaternary ammonium compounds, silver sulfadiazine or chlorhexidine as an ingredient should not be used as a skin disinfectant for blood gas samples.

Benzalkonium may be listed as:

- Alkyl dimethyl benzyl ammonium chloride
- Alkyl didecyl dimethyl ammonium chloride
- Dialkyl dimethyl ammonium chloride
- ADBAC, ADMBA, BAC, BKC, BZK, DDAC.

### **Interferent Detection**

The sodium sensor is monitored in the background as the detection method for benzalkonium-like exposure. If a benzalkonium-like exposure is suspected, the retro-calibration sequence may be initiated and remain in effect until the sensor performance and calibration stabilizes.

A sodium interferent flag was introduced to the RAPIDPoint 500 analyzer in software version 2.3. When a sample is run where the system detects the presence of benzalkonium-like substances, the message “Sodium Sensor Interferent detected” will be entered in the Events Log accessed through the Recall screen. If the “Sodium Sensor

Interferent detected” message is logged, one should determine if there is any source of or exposure to benzalkonium, other quaternary ammonium compounds, silver sulfadiazine or chlorhexidine and eliminate it.

**NOTE:** This message will not be displayed on the instrument System screen status, Event Log, with the patient sample or on the printed report. Not all incidents of interference will be detected and the risk of erroneous results exists in any case where benzalkonium-like substances are introduced to the system.

On the RAPIDPoint 405 analyzer, the same internal interferent detection mechanism is utilized; however, the Events Log message is not available.

### **Technical assistance**

For technical assistance contact your local technical support provider. For customer service or additional information contact your local technical support distributor.

### **Trademark Information**

RAPIDPoint is a trademark of Siemens Healthcare Diagnostics.