Summary:

In 2008, the National Patient Safety Agency (NPSA) issued a Rapid Response Report concerning problems with infusions and sampling from arterial lines. The risk of blood sample contamination from glucose-containing arterial line infusions was highlighted and changes in arterial line management were recommended. Despite this guidance, errors with arterial line infusions remain common. We report a case of severe hypoglycaemia and neuroglycopenia caused by glucose contamination of arterial line blood samples. This case occurred despite the implementation of the practice changes recommended in the 2008 NPSA alert. We report an analysis of the factors contributing to this incident using the Yorkshire Contributory Factors Framework. We discuss the nature of the errors that occurred and list the consequent changes in practice implemented on our unit to prevent recurrence of this incident, which go well beyond those recommended by the NPSA in 2008.