Supplemental digital material 2 – The potential system fixes analyzed. The first 8 are evidence based strategies for reducing intravenous drug administration error as suggested by Jensen et al.[3] and the ninth is the National Patient Safety Agency (NPSA) recommendation for non-Luer lock devices from the national patient safety agency.[4]

The label on any drug ampoule or syringe should be carefully read before a drug is drawn up or injected.
Legibility and contents of labels on ampoules and syringes should be optimized according to agreed standards in respect to font type, size, color and the information included.
Syringes should be labeled (always or almost always).
Formal organization of drug drawers and workspace should be used with attention to: tidiness; position of ampoules and syringes; separation of similar or dangerous drugs; removal of dangerous drugs from the operating theatres.
Labels should be checked specifically with a second person or a device (such as a bar code reader linked to a computer) before a drug is drawn up or administered.
Errors in intravenous drug administration during anesthesia should be reported and reviewed.
Management of inventory should focus on minimizing the risk of drug error (e.g. a drug safety officer and／or a pharmacist should be appointed for the operating theatres and any changes in presentation should be notified ahead of time).

Similar packaging and presentation of drugs contribute to error and should be avoided where possible.
Non-Luer lock connectors should be present on all epidural/spinal/combined spinal - epidural devices