



## ESA2016: Medication Errors - Care with Computerised Order Entry Systems Needed



Computerised Order Entry (CPOE) Systems can improve the quality and safety of medication prescribing and reduce costs, according to [Jozef Kesecioglu](#), Professor of Intensive Care Medicine at the Department of Intensive Care Medicine, University Medical Center, Utrecht, the Netherlands, speaking at [Euroanaesthesia 2016](#) in London in May.

### Slow Adoption

There are proportionally more adverse drug events (ADEs) in intensive care units (ICUs), due to the higher number of drugs prescribed, the preference for intravenous administration that requires dose calculations, the use of high-risk drugs and the fact that patients are often unable to provide an accurate history or help facilitate their care. However, ICUs have been slow to adopt computerised physician order entry (CPOE) systems for prescribing medications.

The reasons include high costs, technical and organisational barriers as well as fear of technology failure and workflow disruption, according to a 2008 study ([Campbell et al. 2008.](#)) And evidence available so far has conflicting evidence from clinical trials on the added value of CPOE systems, said Kesecioglu.

See Also: [Medication Errors in the Intensive Care Unit](#)

### Benefits

The benefits of CPOE include not having to rely on handwritten prescriptions, which may include poor writing and ambiguous abbreviations. CPOE enables rapid transmission of orders as well as the ability to identify allergies and drug drug interactions at the point of care and force compliance with hospital protocols through decision support systems (DSS). On the other hand CPOE has brought two new adverse situations, observed Kesecioglu - double prescriptions and drug monitoring errors.

### Challenges

CPOE also brings ergonomic challenges due to the fact that it necessitates a restructuring of clinical workflow. ICUs that adopt CPOE need more computer workstations and should address the limited nurse physician communication surrounding order entry.

Realising the benefits of prescription-related decision support systems (DSS) requires that many complexities be addressed, and the responsibility falls to healthcare provider organisations to assure intended goals are being achieved, said Kesecioglu.

## **The Future**

Kesecioglu concluded that CPOE shows great promise as a means to improve the safety of healthcare, particularly in complex environments such as the ICU. “As we embrace CPOE, we should not make the assumption that CPOE removes errors; in fact, different types of errors emerge”, said Kesecioglu. “We should not abandon our responsibility for ensuring that a prescription is correct in favour of a computer.”

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