Advice - Risk of death or severe harm due to inadvertent injection

BSIR Safety and Quality Committee
January 2016

Colleagues throughout the UK should make themselves aware of the previously circulated NHS England Patient Safety Alert. This advice is supported by the Faculty of Clinical Radiology of The Royal College of Radiologists February 2016.

NHS England » Patient safety alert ï risk of death or severe harm due to inadvertent injection of skin preparation solution.

Additional educational material has also been provided to BSIR members

The Human Factor: Learning from Gina's Story. - YouTube

The topic will also feature in a forthcoming issue of the Royal College of Radiologists READ (Radiology Events and Discrepancy) Newsletter in 2016.

The following general advice is issued as an aid to colleagues, but local circumstances should be critically appraised as detailed in the Patient Safety Alert and further advice may supersede this. **Particular attention should be paid to the use of closed systems to reduce risk.**

In NHS England they should be incorporated into LocSSIPS (Local Safety Standards for Invasive Procedures) as these develop and become mandatory from September 2016.

Patient safety » Patient Safety Alert ï Supporting the introduction of the National Safety Standards for Invasive Procedures

1. Skin preparation.

Protocols must be in place to ensure skin preparation solutions are removed before the start of a procedure. Colleagues should be aware that exclusively closed systems do exist and are used widely in NHS organizations which would entirely abolish this potential risk.

2. Embolic agents

Open systems should only be used for embolization procedures where agents need to be mixed and prepared openly during a procedure. Examples include particles mixed with contrast immediately before injection and lipiodol/glue mixtures..

For all procedures, colleagues must ensure standardized systems are in place in their own organization to prevent inadvertent injection. As a minimum this would include separate trolleys, labelled/different style syringes and verbal confirmation at every stage before injection. Colleagues should be aware that major adverse events have occurred after the mistaken injection of a variety of embolic agents.

3. Local anaesthetic

Syringes containing local anaesthetic should be clearly labelled and removed from the area where contrast and saline are subsequently being used.

4. Saline versus contrast

Although the clinical consequences in this scenario may be minimal, it is good practice to use labelled/different style syringes and colleagues should move to the use of closed systems as this will further reduce the likelihood of error.