Sharps Injury Prevention - Elimination the danger of a sharp in the Operating Theatre
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Introduction
Operating theatre assistants always handle sharps disposal daily and face with high risk for exposure to bloodborne pathogens from percutaneous injuries. However, totally needleless anaesthesia is impossible. We can only define the risk areas by using appropriate equipment and reduce the danger of a sharp at minimal level. According to one needle stick injury case occurred by theatre assistant in 2014, strong evidence supports that reduction of using sharp items have significant decrease in most injuries rates. Alternative method using safety-engineered devices are also effective to protect user from percutaneous injuries.

Objectives
To reduce the number of percutaneous injuries by (1) reduction of using sharp items (2) safety use of safety-engineered devices.

Methodology
(1) Identify the root causes of percutaneous injuries and set up priorities based on assessments of how needle stick injuries are occurring and patterns of device used in the theatre; (2) With administrative and purchasing department support, hypodermic syringe without needle, mini spike and blunt-tip needle are available for withdraw the drugs instead of using sharps needles. It can reduce the higher demand of using sharps which is the most effective strategy to reduce the risk of injury; (3) By using safety devices such as angiocatheter with built-in safety feature and 40 Liter of sharps disposal container, the aim is to avoid exposing the sharp tip of the needle and safety disposal of long wire respectively; (4) Re-arrange and label all the items in the injection trolley. It is convenient for theatre assistants to pick it up easily and correctly. (5) Conduct a product evaluation which can be achieved to be safety, efficiency and user acceptability; (6) Measure outcome and statistics on IOD.

Result
To provide appropriate resources, review the disposal workflow and pursue appropriate improvement way, Operating theatre assistants had no needle stick injury case occurred within 3 months. To enhance the quality and safety culture in OR, needleless syringe should be established for happy staff to improve staff healthiness.