A cluster base chemical safety program to ensure the workplace safety and minimize staff chemical exposure

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Introduction
Kowloon West Cluster (KWC) is the largest cluster (in Hospital Authority, Hong Kong) with eight hospitals, over 13,000 staffs and with total of 6,692 beds. In such complex healthcare environment, a lot of hazardous chemicals are in used. Under our cluster OSH Committee, we formulated a Chemical Safety Working Group (CSWG) to carry out specific chemical safety program on the control of chemicals, effort are put on two commonly used hazardous chemicals, they are Glutaraldehyde (Cidex) and Formaldehyde.

Objectives
Our program is to assure chemical safety for our colleagues as: 1. to ensure the compliance of related legislations; 2. reviewing of the chemical safety management system; 3. devise a control mechanism on the acquisition of hazardous chemicals; 4. conducting a cross hospitals visit with exposure monitoring on Glutaraldehyde (Cidex) and Formaldehyde;

Methodology
A cross hospital visiting team was formed; departments / units in cluster hospitals had been inspected. Through this hospital inspection, we were not only to the visiting site, but also to the managers and frontlines concerned. To effect a system change to improve chemical safety in hospital, an annual plan was put forward to include the following: 1. Provide update MSDS and handling guidelines to users; 2. Provide
spillage kits for Glutaraldehyde and formaldehyde to user departments; 3. Produce video on Chemical Spillage drill and uploading to cluster website; 4. Regular exposure monitoring exercise for Glutaraldehyde and Formaldehyde;

**Result**

On top of our general chemical safety promotion, total numbers of 41 and 65 exposure monitoring samples on Glutaraldehyde and Formaldehyde were taken in 2012 and 2014 respectively. Majority of the results were within the occupational exposure limit (OEL), but three workplaces required reassessment. After system evaluation, we implemented several improvement measures, such as workflow rectification, enhancement of ventilation and exhaust system etc. Then we tried second exposure monitoring, and had satisfactory results. Through this hospital inspection, our cross discipline professional team was established. The awareness for chemical safety was raised, not only to the visiting site, but also to the managers and frontlines concerned. To put the safety management system in place, top management had demonstrated full support in providing resources and commitment to safety culture from the top to frontlines.