



## Service Priorities and Programmes Electronic Presentations

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### **Enhancement Program in Safe Use of Chemical Substances in GOPCs**

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### **Keywords:**

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### **Introduction**

1. The Hospital Authority (HA) took over all General Outpatient Clinics (GOPCs) from the Department of Health in July 2003 2. The existing setting and facilities might not optimize the safety standard for the use of chemical substances upon the diversity of health care service 3. New service like sigmoidoscopy with rubber band ligation which requires quickly & high-level disinfection by chemicals e.g. Cidex OPA Solution had been introduced in some GOPCs; exposure to hazardous chemicals would have adverse effects ranging from minor skin, eye, or mucous membrane irritation, to burns, respiratory distress, nervous system dysfunction 4. All staff is eligible to have updated knowledge on both handling the new procedure & occupational health on chemical safety 5. It is crucial for managerial level to establish the safe system of work for the use of chemical substances proactively

### **Objectives**

KWC Chemical Safety WG joined the Committee for better planning on chemical safety. Standard checklist was adopted to meet the legislative requirement in safeguarding staff from injury. Inspection to the GOPCs which required high-level chemical disinfection as to identify any immediate hazards Standardization & control of chemical inventory into operation of chemicals was done by setting up a safety management system. Components in the development of safety system of work were based on "6 M's conceptual framework: Man: Designated link person on training; Risk assessment; drill & promotion Machine: Use & maintenance of LEV Material: MSDS; Manufacturer instruction; Inventory & storage control; Chemical Safety web Method: SOP; Workflow design, Written guidelines on stored, dispensed, used & disposed of chemical; OSH Regulations Measurement: Ventilation assessment; Exposure monitoring; inspection Milieu: temperature / humidity / chemicals incompatibilities

### **Methodology**

1. identified the limitations in general chemical usage such as storage quantity, inappropriate containers and labeling, and enhanced staff cognitive and knowledge in safety handling chemical substances in daily operation 2. For procedures required

Cidex OPA as disinfectant, it was advised to establish local exhaust to extract the emitted chemical vapour. 3. The air-flow of the local exhaust was checked to ensure its effectiveness 4. Exposure monitoring including environmental and personal monitoring was conducted to determine the baseline level. 5. Standard chemical spill kit and checking system were well equipped. 6. arranged fit test for chemical respirator. 7. educate the proper selection, wearing, cleansing and maintenance of chemical respirators, cartridges and its accessories. 8. Spill management training to demonstrate proper procedure in handling chemical spill and disposal of chemical waste 9. Management approved budget to purchase respirators / chemical cartridge

### **Result**

1. compliance rate of the GOPCs in the chemical safety inspection were from 68 to 89%, a safe system of work had been formulated 2. Staff knowledge and alertness had been increased 3. The concept of chemical hazards control has been promoted 4. Proper management of spillage of cidex OPA was established 5. Air-flow checking towards the local exhaust showed satisfactory in-flow. 6. All exposure monitoring results showed none-detected Cidex OPA in both personal and environmental monitoring: 7. Comprehensive guideline on safe use of Cidex OPA had been prepared as standard reference 8. Maintain regular checking to ensure the emergency eyewash is effective / without expire. 9. Updated MSDS by OSH website 10. On-going progress:

Annual OSH inspection	Annual monitoring of the exposure level	Regular
check the flow of the LEV	Refresher training on spill management	Evaluate
the effectiveness of the program		