



# Occupational Health Services (OHS)

## **Victor Hoe Chee Wai**

MBBS, MPH (Malaya), MPH (Occupational Health) (Malaya),  
CMIA, OHD, CHRA

**Lecturer**

**Occupational and Environmental Health Unit  
Department of Social and Preventive Medicine**

# What is an OHS?

- ILO OHS Convention 1985 define OHS as services entrusted with essentially **preventive** functions and responsible for advising the **employer**, the **workers** and their **representatives** in the undertaking on:
  - The requirements for establishing and maintaining a **safe & healthy working environment** that will facilitate **optimal** physical and mental health in relation to work;
  - The **adaptation** of work to the capabilities of workers in the light of their state of physical and mental health;

# Multi-Disciplinary

- First-Aider
- Safety and Health Officer (SHO)
- Hygiene Technician
- Occupational Health Nurse
- Industrial Hygienist/Engineers/Ergonomics/  
Toxicologists
- **Occupational Health Physician**

## What are the arrangements for OH Physician?

- A part-time occupational physician
- A part-time occupational physician and a full-time occupational health nurse.
- A full-time occupational physician providing services to a group of companies
- A full-time occupational physician and a full-time occupational health nurse adviser(s)



- A part-time occupational physician
  - This is frequently the preferred option for smaller companies, or
  - Those with a limited, well-defined range of hazards, or
  - Those who need an occupational physician to undertake a specific task.

- A part-time occupational physician and a full-time occupational health nurse.
  - Medium-sized companies often choose this pattern:
  - The doctor acts as supervisor;
  - Both the occupational physician and the occupational health nurse should have been trained in occupational health.
  - Together, they may provide clinical treatment as part of their services.

- A full-time occupational physician providing services to a group of companies
  - For small and medium-sized firms
  - The benefit provides them with access to a specialist in occupational medicine without them carrying the full overhead costs.

- A full-time occupational physician and a full-time occupational health nurse adviser(s)
  - The preference of the larger organisation,
    - With more complex requirements and/or
    - The company with a more extensive range of hazards.



# Example of some companies with fulltime OH Physician

- PETRONAS
- ExxonMobil
- Shell
- Malaysian Airlines
  - Duties and responsibility of the OH physician in the different companies are different



- The occupational physician should be an accredited specialist who oversees the services and reports to senior management, often the human resources director.

# Qualification of OH Physician

- Certificate Programme
- Diploma
- Faculty of Occupational Medicine
- Masters in Medicine (Occupational Medicine) – NUS
- Master in Public Health (Occupational Health)

- Certificate Programme
  - NIOSH – Occupational Health Doctor Course
    - Part-time course
    - Duration of course 9 days with examination
    - Principally to carry out **Medical Surveillance** under the OSH (Use and Standard of Exposures of Chemicals Hazardous to Health) Regulation 2000
    - Aimed principally at GPs working part-time in occupational medicine who which to carry out Medical Surveillance

## ■ Diploma

- UKM – Postgraduate Diploma in Occupational Health
  - Part time course
  - Duration of course one and half year with three days of classes every month
  - A mid training qualification
  - Aimed principally at GPs working part-time in occupational medicine
  - Demonstrates an understanding of the main issues affecting health and work

- Licentiate Faculty of Occupational Medicine (LFOM)
  - A mid training qualification
  - Aimed at doctors interested in pursuing a full-time career in occupational medicine
  - Demonstrates a core knowledge in occupational medicine theory and practice.
  - Has pass in the examination



- Associateship of the Faculty of Occupational Medicine (AFOM)
  - A mid training qualification
  - Aimed at doctors interested in pursuing a full-time career in occupational medicine
  - Demonstrates a core knowledge in occupational medicine theory and practice.
  - Has pass in the examination



- Memberships of the Faculty of Occupational Medicine (MFOM)
  - A career specialist qualification
  - Demonstrates full knowledge in occupational medicine theory and practice
  - Has had approved training posts supervised by consultant Occupational Physicians



- Fellow of the Faculty of Occupational Medicine (FFOM)
  - Awarded to consultant occupational physicians who have made a distinguished contribution to the specialty and who demonstrate a greater depth of experience and expertise in occupational medicine.



- Masters in Medicine (Occupational Medicine) - National University of Singapore (MMed(OM))
  - Full time
  - Duration of course is one year
  - A career specialist qualification
  - Demonstrates knowledge in occupational medicine theory and practice

- Master in Public Health (Occupational Health) (MPH(OH))
  - Offered 3 public Universities in Malaysia
    - University of Malaya (UM)
    - National University of Malaysia (UKM)
    - University of Science, Malaysia (USM)



- Full time
- Duration of Course 4 years
  - 2 years in-house full time instruction
  - 2 years supervised attachment posting
- Demonstrates knowledge in occupational medicine theory and practice, and occupational health laws in Malaysia
- Demonstrate knowledge in Public Health
  - Issues in Public Health
  - Prevention and Promotion
  - Public Health Laws in Malaysia



- Although knowledge can be acquired through experience in the workplace, in the absence of formal training in occupational health, this may not meet the requirements for competence that are demanded by many aspects of health and safety legislation.



- The qualification of the Occupational Health Physician will depends on
  - The type of OHS the company wish to offer,
  - The size of the organization, and
  - The type of hazard the present.



- The Occupational Physicians must have a wide knowledge of clinical medicine and be competent in a number of important areas .....



- Occupational health hazards,
- Assessment of Disability and Fitness for Work,
- Communications skills,
- Ability to do Research,
- Local occupational and public health laws,
- Ethical issues,
- Health Promotion,
- Management Skills, and
- Environment Issues



## Range of OHS

- Promotion & Prevention,
- Treatment,
- Disability Evaluation,
- Return to Work Programme,
- Alcohol and Drug Use,
- Travel Health, and
- Administrative

# Range of OHS

- Promotion of Occupational Health and Safety and Prevention of Occupational Accidents and Diseases
  - Medical Examination
  - Medical Surveillance
  - Health promotions
  - Safety Training
  - Immunization



- Treatment
  - Medical Treatment
  - Medivac – Medical Evacuation
- Disability Evaluation
- Return to Work Programme
  - Rehabilitation



- Alcohol and Drug Use
- Travel Medicine
- Administrative
  - Health record and documentation
  - Notification



# Medical Examination (ME)

- Pre-employment
- Pre-placement
- Periodic

## Content for ME

- Should be done in confidence
- Should explain to the candidate who is being examined the information obtained during the examination will be made known to the potential employer
- All sensitive information or incidental findings must be discussed with the employee first before informing the employer
  - HIV/AIDS
  - HBV

# Pre-employment ME

- Conducted prior to employment
- Should not discriminate
  - US – Disability Act
- Only to look at the general health
- Question
  - Is the candidate healthy enough to work?

# Content

- Consists of General Medical Examination
- Chest X-ray
- Urine analysis
- Blood Examination – only on request



## Pre-placement ME

- Conducted after the candidate has been employed or on being reassigned
- The ME is for specific Job
- The doctor who conduct the ME should be familiar with the Job



- Does his health affect his work?
- Does his work affect his health?



- Questions?
  - Can the employee perform the Job without danger to himself, his colleagues or the public?
  - Does the Job affect his current medical condition?

# Indication

- Jobs with specific needs
  - Airplanes pilots
  - Commercial Vehicle Drivers
  - Professional Divers/Compress Air Workers
  - Air Tower controller
  - Electronic workers

- Jobs with specific hazards
  - Noise
  - Lead
  - Asbestos/Silica
  - Identified after CHRA



# Examples

- Colour vision
- Balance test
- Contrast Sensitivity
- Field of vision
- Cardiac condition
- Audiogram
- Blood lead level

- What is the requirement of a driver?
- What is the requirement of a commercial vehicle driver under the CVD licensing Act?

## Failure of ME

- If the employee fails in any of the special test for jobs with specific needs, does it mean that the employee cannot work?



- The employee should be subjected to on-site evaluation to assess his ability to carry out the specific job.
  - Drive under supervision

## Periodic ME

- The interval between each medical examination will depends on the
  - type of job or
  - the results of the previous medical examinations, and
  - the time intervals depends on
    - Legal Requirements
    - Company's Requirements

# Medical Surveillance

- Type of examination depends on the hazards at the workplace
- Stipulated in legislations or after Chemical Health Risk Assessment (CHRA)
- To Detect early signs of disease or abnormal results for prevention of complication
- The time interval depends on
  - Legal Requirements
  - Company's Requirements
  - As determined by OH Physician

# Example of MS

- Biological Monitoring
  - Lead in blood - Lead workers
  - Cholinesterase level in blood – foggers
  - Inorganic arsenic and methylated metabolites in urine – exposure to arsenic
  - Cadmium in urine – exposure to cadmium
  - Cadmium in blood – exposure to cadmium

- Biological effect monitoring
  - Liver Function Test – Mineral dusts
  - Haematology Profile - x-ray workers
  - Audiogram - Exposure to noise
  - Chest X-ray - Asbestos, Mineral Dusts
  - Nerve conduction velocity – exposure to n-Hexane

# Medical Treatment

- The range of medical treatment depends on,
  - Set-up
  - Employers requirement and policy
  - Accessibility of 2° and 3° Medical Centres

# Type of Medical Treatment

- Clinical Service
  - OPD
  - Specialist Clinic
- Emergency Service
  - First Aid
  - CPR
  - Ambulance service
  - Medivac – Medical Evacuation

# Medivac

- It is the evacuation of an employee or patient during a medical emergency, example
  - Cardiac Emergency
  - Workplace Accidents
  - Diarrhoea
- Can be divided into
  - Domestic
    - Evacuation to location within Malaysia
  - International
    - Evacuation to location anywhere in the world
    - Usually for expatriate



- What do you do if you have a heart attack on top of Mount Kilimanjaro?
- Can you fly after SCUBA diving?
- How do you evacuate a diver with DCS from Prehentian Island Resort to Lumut Naval Base?

# Disability Evaluation

- What is impairment?
- What is disability?
- What is handicap?



# Impairment

- A loss, loss of use, or derangement of any body part, organ system, or organ function
  - *Guides to the Evaluation of Permanent Impairment (5<sup>th</sup> ed, 2000)*
- Problems in the body function or structure as a significant deviation or loss. Impairment of structure can involve an anomaly, defect, loss or other significant deviation in body structures.
  - *WHO (1999)*

# Disability

- An alteration of an individual's capacity to meet personal, social or occupational demands because of an impairment.
  - Guides to the Evaluation of Permanent Impairment (5th ed, 2000)

- Activity limitation (formerly disability) is a difficulty in the performing, accomplishment, or completion of an activity at the level of the person.
- Difficulty encompasses all of the ways in which the doing of the activity may be affected.
  - WHO (1999)

# Handicap

- A physical or mental impairment that substantially limits one or more of the major life activities of such individuals
  - Americans with Disabilities Act (ADA)

## ? Impairment = Disability

- Is the term interchangeable?
  - A brick layer who have loss his right little finger has an impairment but he is not disable as he could still perform his job.
  - A pianists who have loss his right little finger has an impairment and he is also disable as he is unable to play the piano.

# Compensation

- For compensation purpose,
  - extend of impairment is used and not disability,
  - it also looks at ability to perform Activity of Daily Living (ADL)
    - Clean oneself
    - Feed oneself
    - Clothes oneself

# Disability Evaluation

- Is to evaluate the employee post illness or injury on the extend of the impairment and disability
- To access the ability of the employee to perform the previous job.
- It is to assists to determine the return to work programme.

## Return to work

- It is to help the employees return to work after prolong illness or injury
- Prior to his return, he will have to undergo disability evaluation
- The new post (Job) will depends on the ability of the employee to perform.
- The extend help offered depends on
  - Contract of employment
  - The employee's skills

# Content of the Programme

- Counseling
- Rehabilitation
- Retraining
- Assistance
  - Financial
- Relocation
  - To new Job

# Alcohol and Drugs

- Most companies have strict alcohol and drug policy
- Some Jobs requires mandatory screening for alcohol and drug
  - Job dealing Hazardous substances
  - Job concern with the safety of the public and other employee

# Screening

- Type
  - Before starting the Job
  - Random
  - Post incident
- Procedure
  - Must have clearly written procedures
  - The process should be explain to the individual
  - Written Consent should be taken
- Legal Matters

# Travel Medicine

- To look into the health issues for employees which have to travel to foreign or domestic location where there is a health risk involved.
- Consists of
  - Pre-travel,
  - During travel, and
  - Post-travel arrangements.

# Pre Travel Arrangement

- Immunization requirement
  - Yellow Fever – Southern Africans Countries
  - Meningococcal Vaccine – Hajj Pilgrimage
- Medical conditions of the employee
- Available Medical services
- Travel Kits
- Prophylaxis for certain diseases before travel
  - Malaria
- Similar arrangement for family members

## During Travel

- Prophylactic medication to be continue
- Explanation on
  - Hazards related to air travel
  - Precautionary Measure to be taken
  - Areas with potential health hazards
  - Clean food
  - Potable water
- Arrangement for Emergency Evacuation

# Post Travel

- Prophylactic medication to be continue
  - Malaria
- Medical Examination
- ? Quarantine

# Travel Kits

- The purpose of a Travel Kit is twofold:
  - To allow the traveler to take care of minor health problems as they occur and
  - To treat exacerbations of pre-existing medical conditions.
- The specific contents of the health kit are based on
  - destination,
  - duration of travel,
  - type of travel, and
  - the traveler's pre-existing medical conditions.

# Travel Kits

- Basic medication, e.g.
  - Antipyretics
  - Antihistamines
  - Cough mixtures
- Specific medication depends on medical condition of the employee
- Basic First Aid
- Emergency Evacuation
  - Numbers
  - Plan



Department of Health and Human Services  
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## Travelers' Health

Select by Country

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Yellow Book



Type FIRST Letter of Country here

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[Frequently Asked Questions](#)

[2005-2006 Yellow Book](#)

[Diseases](#)

[Illness and Injury Abroad](#)

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Includes domestic and international partners

### Announcements

**New!** [What You Should Know About Mumps](#)

**New!** [Chikungunya Fever Fact Sheet About This Site](#)

### Travel Notices

**Travel Health Warnings:** None  
**Travel Health Precautions:** None

### Outbreaks

- > [Update: Recent Measles and Mumps Outbreaks](#) (Updated April 28)
- > [Chikungunya Fever in India](#) (Released April 21)
- > [Update on Outbreaks of Poliomyelitis](#) (Updated April 11)
- > [Human Infection with Avian Influenza A \(H5N1\) Virus](#)
- > [Interim Guidance about Avian Influenza A \(H5N1\) for U.S. Citizens Living Abroad](#)

### In The News

- > [Hand, Foot, and Mouth Disease](#)

# Yellow fever-endemic zones in Africa, 2005



# Yellow fever-endemic zones in the Americas, 2005



<http://www2.ncid.cdc.gov/travel/yb/utills/ybGet.asp?section=dis&obj=yellowfever.htm&cssNav=browseoyb>



# Notification

- To comply with Legal Requirements
  - Part VIII OSHA 1994
  - Part VI Pesticides Act 1974
  - Subsection 10(2) *Akta Pencegahan dan Pengawalan Penyakit Berjangkit 1988*

## Subsection 32(1) OSHA 1994

- Every registered practitioner or medical officer attending to, or called in to visit, a patient whom he believes to be suffering from any of the diseases listed in the Third Schedule of the FMA 1967 or any disease named in any regulation or order made by the Minister (MOHR) under this Act, or occupational poisoning shall report the matter to the Director General (DOSH)

## Subsection 28(3) Pesticides Act 1974

- Whenever a registered medical practitioner finds or has reason to believe that a person has died or suffered personal injury as a result of the handling, use, or presence of or contact with or exposure to a pesticide, the registered medical practitioner shall forthwith send or cause to be sent to the Minister notice of the death or personal injury.



- *"Enhancing competitive performance through effective occupational health management"*