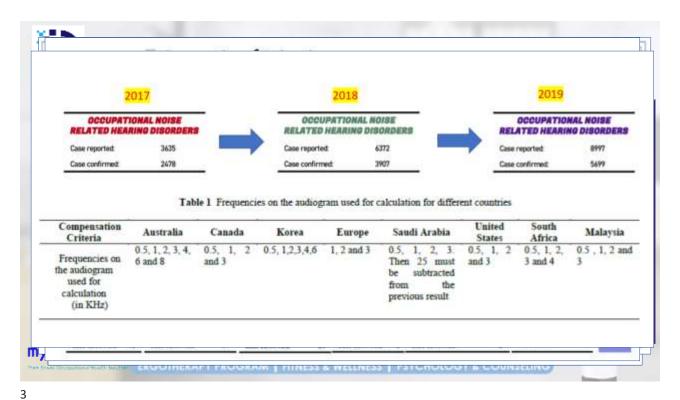# Noise Induced Hearing Loss (NIHL) – Semi AI software to assist Occupational Health Doctors

Dr Shawaludin Husin - Malaysia
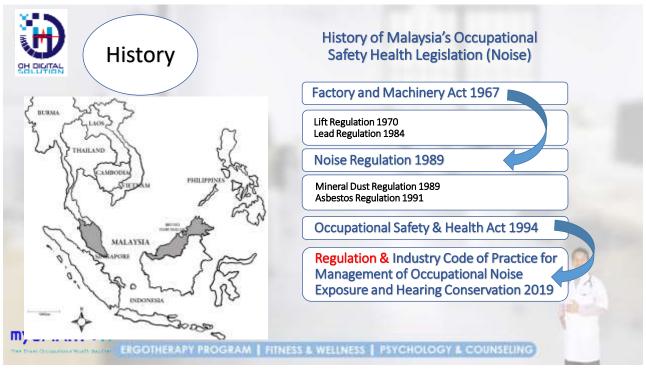
s⊙m
Supporting occupational health and wellbeing professionals

Anticipate, prepare and respond to crises

INVEST NOW IN RESILIENT OSH SYSTEMS
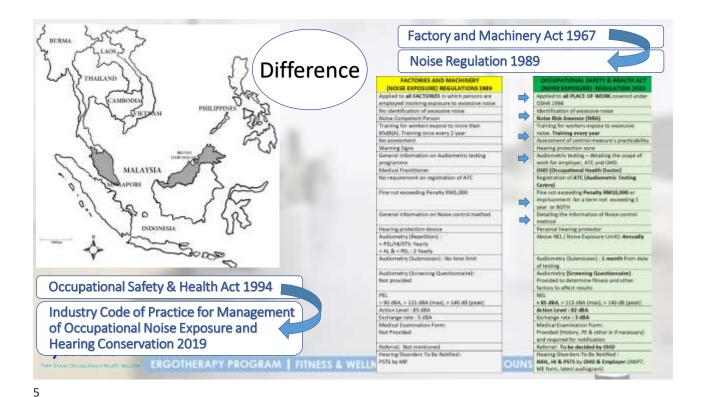
World Day for Safety and Health at Work

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MSOSH EST. 1971

APOSHO
Asia Pacific Occupational Safety & Health Organization

29 Full Members
ASIA | AFRICA | OCEANIA

About APOSHO

The Asia-Pacific Occupational Safety and Health Organization (APOSHO) is an international body

- composed of non-profit professional organizations devoted to the prevention of occupational accidents and diseases. Although full membership is given to non- governmental organizations in the Asia-Pacific region, any occupational safety and health organizations, even in the regions other than the Asia-Pacific, can join the APOSHO as associate or affiliate members

Eg. The Institution of Occupational Safety & Health (IOSH), Board of Certified Safety Professionals (BCSP), The German Social Accident Insurance (DGUV)

- Members as of 2020 : 39 organizations from 21 different countries or districts. Two or more member organizations from Australia, China, Indonesia, Korea, Malaysia, Mauritius, Thailand, Vietnam, etc. respectively.

Korea Japan
China
Pakistan
Taipei
Hongkong
India
Thailand Vietnam
Philippines
Sri Lanka
Malaysia
Singapore
Indonesia

ASIA

- Technical Committee
- Membership Committee
- Management Development Committee
- Occupational Health and Safety Management System (OHSMS) Committee
- Education & Training Committee
- Health & Wellbeing Committee

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Slide 3

	2017		2018		2019

OCCUPATIONAL NOISE RELATED HEARING DISORDERS

	2017	2018	2019
Case reported:	3635	6372	8997
Case confirmed:	2478	3907	5699

Table 1 Frequencies on the audiogram used for calculation for different countries

Compensation Criteria	Australia	Canada	Korea	Europe	Saudi Arabia	United States	South Africa	Malaysia
Frequencies on the audiogram used for calculation (in KHz)	0.5, 1, 2, 3, 4, 6 and 8	0.5, 1, 2 and 3	0.5, 1,2,3,4,6	1, 2 and 3	0.5, 1, 2, 3. Then 25 must be subtracted from the previous result	0.5, 1, 2 and 3	0.5, 1, 2, 3 and 4	0.5, 1, 2 and 3

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Slide 4

History

History of Malaysia's Occupational Safety Health Legislation (Noise)

Factory and Machinery Act 1967

Lift Regulation 1970
Lead Regulation 1984

Noise Regulation 1989

Mineral Dust Regulation 1989
Asbestos Regulation 1991

Occupational Safety & Health Act 1994

Regulation & Industry Code of Practice for Management of Occupational Noise Exposure and Hearing Conservation 2019

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Difference

Factory and Machinery Act 1967

Noise Regulation 1989

Occupational Safety & Health Act 1994

Industry Code of Practice for Management of Occupational Noise Exposure and Hearing Conservation 2019
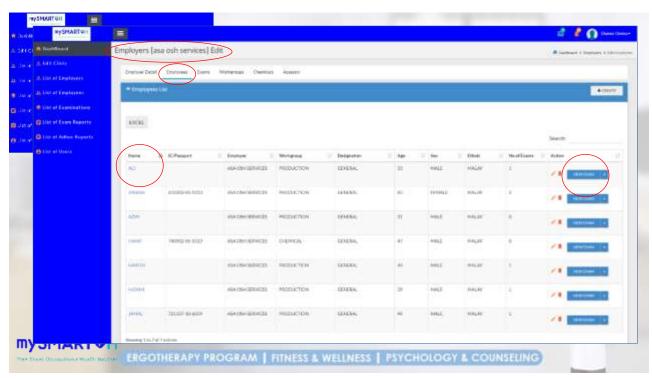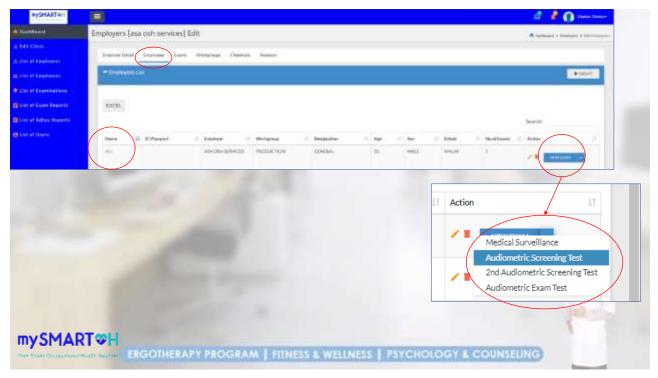
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Factory and Mach

ealth Act 1994

PROCESS TIMEFRAME FOR AUDIOMETRIC TESTING

Process Complete Within 7 weeks (as per ICOP Noise 2019)

- First Worker Seen
- Data Entry Started

day 0

- Last Worker Seen
- Data Entry Completed
- Report Preparation

day 14

- Submit draft report to Employer

day 16-17

- Medical Examination by OHD

day 18 - 22

- OHD Notification to DOSH
- Presentation to Employer

day 23 - 30

- Employer Notification to DOSH

day 31 - 38 (7 days)

- Employer Inform and notify ALL employees

day 31 - 52 (21 days)

ATC Timeframe (Days)

Employer Timeframe (Days)

No time li

he Report

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Hearing Loss with Hearing Impairment & NIHL Pattern

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When click it will directly go to the Department of Occupational Safety and Health (DOSH) website for notification purposes

Recommendations

- ✓ Medical Exam by OHD
- Repeat audiometry within 3 months
- Repeat audiometry after treatment
- Continue annual audiometry
- ✓ Education & Training

Introduction

The purpose of e-JKKP7 is to allows the employer and the registered medical practitioner reporting occupational disease and poisoning through online system. According to Occupational Safety and Health Act 1994 (Act 514) employers and medical practitioners are required to report to the Department of Occupational Safety and Health closest if any occupational disease and poisoning occur in the workplace. The Act also states that every registered medical practitioner must report if an employee believed / suspected of suffering from occupational diseases or occupational poisoning to the Director General

Scope

This system is consists of several modules :-

- Registration Module
- Investigation Module
- Reporting Module
- Administration Module

System Interface

The interface between the e-JKKP7 System and the user is a web browser, PDA or Smartphone Web Browser. The Graphic User Interface (GUI) for e-JKKP7 follow the modern design. The e-JKKP7 system support popular web browser such as Internet Explorer 9.0 and above, Mozilla, Opera and Safari. e-JKKP7 is designed to give support department a broader and user-centered experience

mySMART♥H

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Easier to manage the Audiometry Program

RECORD KEEPING
- Keep and analyze employee record (big data) as per legal requirement
- Optimize storage compare to scan method or Electronic Management System

SMART NOTIFICATION
- System will notify employee within 21 days for ALL result

REALTIME DASHBOARD
Employer can view and monitor company performance online such as
i. Trend of result (HL, HI, STS, etc..)
ii. Record Monitoring – e.g. expose, control, training control, signage area, PPE issuance, etc.

SUSTAINABILITY DATA
- Employer has full access control on all record without rely on 3rd party i.e. ATC/OHD/SHO
- Employer has a right to transfer record to external party without compromise data integrity

MULTIPLE MODULE
Employer entitle to get full suite of mySMARTOH module e.g. audiometry, medical surveillance, fitness to work, etc..

COST
- Storage for filling purposes
- Purchase software/hardware
- Logistic to courier historical record
- Penalty
- Compensation (if no proactive action taken)

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LET'S TALK!

mySMART♥H
Your Smart Occupational Health Solution

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