



OCCUPATIONAL HEALTH: THE SA PERSPECTIVE & APPROACH

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Overview

- Legal Framework
- Occupational Health HCWs
- Clinical Occupational Health
- Risk Assessment & Management
- Medical Surveillance
- Other Important Roles
- Occupational Health Services Setup
- Case Study
- Questions

Legal Framework

Relevant Laws:

- Occupational Health & Safety Act/MHSA
 - Section 8
 - Instructions
 - Regulations
- Compensation of Occupational Injuries & Diseases Act/ODMWA
 - Acts as insurance
 - Compensation
 - Benefits
- Labour Relations Act
 - Procedures on Leave and Terminations
 - NB aspects relating to OHS
- RTMA
 - Licensing
 - PDP – Medical
 - Classification

Legal Framework

Duty of employers

Section 8 of the OHS Act place the onus on employers to ensure that the working environment is safe and without risks to the health of their employees. In order to accomplish this, employers must through the services of a competent person assess the exposure of their employees to hazardous environmental conditions in the workplace.



Relevant Laws:



Occupational Health & Safety Act/MHSA

- Role of OHS
- Application

Legal Framework

Relevant Laws:

- Compensation of Occupational Injuries & Diseases Act/ODMWA
 - Management of IOD's
 - Liaison with External HCWs
 - RTW medicals and placement



Legal Framework



Relevant Laws:



Labour Relations Act

- Absenteeism Management
- Leave Management (Maternity, IOD)
- Terminations due to incapacity

Legal Framework

Relevant Laws:

- RTMA
 - Licensing, professional permit
 - Fitness to drive / Medicals (e.g. epilepsy, HPT)
- Different Instructions (171, 184, etc)
 - Instruction 171
 - Instruction 176
 - Instruction 180
 - Instruction 184
- Regulations
 - Driven Machinery
 - Hazardous Biological Agents
 - Hazardous Chemical Agents

Occupational Health

- WHO Definition

- Occupational health is an area of work in public health to promote and maintain highest degree of physical, mental and social well-being of workers in all occupations.

- Occupational Health v/s Occupational Medicine

- branch of medicine which is concerned with the maintenance of health in the workplace, including prevention and treatment of diseases and injuries, with secondary objectives of maintaining and increasing productivity and social adjustment in the workplace.

- Occupational Health is an umbrella term.

Occupational Health

- Role players & Responsibilities

- OMP – Leader & decision maker. Holds liability. Prescribes MS and RM solutions
- OHNP – Supports OMP. Conducts MS and often 1st contact with workers (Adviser)
- Technician – SASOHN Registration, conducts testing. Administration.

- Occupational Clinic vs PHC Clinic

- The difference is in the functions
- PHC not mandated, can be administered by any HCW

Legal Mandate

- Primary Mandate for Occupational HCW's:
 - Risk Assessment
 - Medical Surveillance
- Other Responsibilities:
 - Incapacity
 - IOD's
 - Advisory

Risk Assessment

A background image showing a large group of skydivers in various colorful suits (red, blue, yellow, black) falling from the sky. They are arranged in a large, loose circular formation, with some individuals in the center and others scattered around the perimeter. The sky is a pale, hazy blue.

- What is a Health Risk Assessment and why do we need a Health Risk Assessment?
 - One of scientific and systematic ways of determining, quantifying, and managing risk to achieve safety in the workplace.
- Different types of RA
 - Qualitative v/s quantitative
- Role Players
 - SHEQ team
 - Occupational hygienists
 - OMP & OHNP (Consolidation)

Risk Assessment

- RA Process:
 - Hazard Identification – walkabouts
 - Done at least every 2 years
 - Quantification and grading
 - Recommendation of controls
 - Actioning/Implementation
- Risk v/s Hazard



Risk Assessment

- Hazard Types

- Physical
- Chemical
- Biological
- Ergonomic
- Psychosocial



Risk Assessment

- Risk Grading
 - Severe
 - High
 - Moderate
 - Mild
 - Very mild
- Risk Matrix

Risk Assessment



- Risk Management:

- Hierarchy of Controls

- * Elimination
 - * Substitution
 - * Engineering Controls
 - * Administrative Controls
 - * PPE



Risk Assessment

- Risk Communication
 - What?
 - When?
 - Where?
 - Who?
 - Why?
 - How?
 - How Much?

RA - MS

- OREP

- Defined
- Purpose
- Who is responsible?

Occupational Risk & Exposure Profile ("OREP")									
Positions applicable to this OREP:									WASP:
SECTION:	DEPARTMENT:	DIVISION:							
Rate all aspects on a scale of 1-5 (1 = None, 2 = Low, 3 = Medium, 4 = High)									
INHERENT REQUIREMENTS:			RISK-RATED HAZARD EXPOSURE:						
Requirement scores (1-5)	Req. scores (1-5)	Req. scores (1-5)	Hazardous CHEMICAL Substances: (Powders, liquids, fumes, dusts, etc.)						
THE SENSES	COMPOSITE FUNCTIONS		Scale: 1-5 (None) 2-3 (Low) 4-5 (High)	Scale: 1-5 (None) 2-3 (Low) 4-5 (High)	Scale: 1-5 (None) 2-3 (Low) 4-5 (High)	Scale: 1-5 (None) 2-3 (Low) 4-5 (High)	Scale: 1-5 (None) 2-3 (Low) 4-5 (High)	Scale: 1-5 (None) 2-3 (Low) 4-5 (High)	Scale: 1-5 (None) 2-3 (Low) 4-5 (High)
Hearing	Fine motor control		Chemical Name	CONC	PROB	IND	GRP	Target Organs	SCORE
Balance	Hand-eye co-ordination								
Vision: Acuity - near	Hand-eye-foot co-ord								
Acuity - far	Use of both hands required								
Vision fields	Use of both feet required								
Depth	Strength (power) (kg)								
Colour	Endurance (fitness)								
Night vision	Clear thinking / alertness								
Corrected vision allowed? (Y/N)									
Smell									
Touch									
GENERAL	SECONDARY TASKS		BIOLOGICAL Agents:		DUST:				
Clarity of speech	Company Driver (Code...)		CONC	PROB					
Company Driver ()	Fork-lift operator				Asbestos				4
Operator	Operate haz machinery				Silica / Quartz				3
	Fire / Rescue Team				Grain / Wood / Chaff				2
	Hazmat / Spill Team				Cotton / Flax				2
	First Aid				Animal Protein				2
					Other				
PPE REQUIRED	ENVIRONMENT / TASKS		PHYSICAL Agents:		PHYSICAL Agents:				
Hard Hat	Climbing ladders/stairs		CONC	PROB					
Eye Protection	Work at Heights				Noise			Radiation (ionizing) - x-rays	4
Face Shield	Confined spaces				Heat			- alpha / beta / gamma	4
Mask	Near dangerous machinery				Cold			Radiation (N-Ion) - Laser	2
Respirator	Prolonged sitting				Glare			- UV (sun, welding)	4
Air hood	Bending/squatting				Vibration (Segmental)			- Infra Red (sun, welding)	2
Hearing Protection	Prolonged standing				Vibration (Whole)			- Radio micro	2
Overalls	Uneven or slippery terrain							- VLF, ELF, mag	2
Fleece-lined jacket	Poor lighting							- EMF	2
Safety Belt/Harness	Shift work		ERGONOMIC Hazards:		ERGONOMIC Hazards:				
Gloves	International Travel		CONC	PROB					
Safety Boots	Other				Awkward posture/position			Repetitive movements	3
					Twisting			Forceful movements	3
					Static loading			Tasks at extremes of reach	2
NOTES									
Approved by:			Position:			Date:			

RA - MS

■ MS Matrix

- Defined
- Purpose
- Who is responsible?

5x5 Risk Matrix Example

Impact
How severe would the outcomes be if the risk occurred?

Probability
What is the probability the risk will happen?

	Insignificant 1	Minor 2	Significant 3	Major 4	Severe 5
5 Almost Certain	Medium 5	High 10	Very high 15	Extreme 20	Extreme 25
4 Likely	Medium 4	Medium 8	High 12	Very high 16	Extreme 20
3 Moderate	Low 3	Medium 6	Medium 9	High 12	Very high 15
2 Unlikely	Very low 2	Low 4	Medium 6	Medium 8	High 10
1 Rare	Very low 1	Very low 2	Low 3	Medium 4	Medium 5

SafetyCulture

Medical Surveillance

- What is Medical surveillance?
 - Structured medical assessments that are performed at intervals or on occasions to minimize the risk of exposure to hazards and its impact.
 - Why is it part of risk assessment and management?
- Purpose of Medical Surveillance
 - Benefits

Medical Surveillance

- Types of Medical Surveillance
 - Pre-employment
 - Pre-placement
 - Initial v/s baseline Medical Assessment
 - Periodic Medical Assessment
 - Return to work Medical Assessment
 - Fitness to work medical assessment (clinic visits)
 - Exit
- Medical Surveillance process

Medical Surveillance



**Medical surveillance
Process:**



**Occupational & Clinical
History**



Clinical Examination (HTT)



Investigations

- Sideroom
- Legislated tests
- Biological monitoring
- Other clinical tests (Lab, Radiography)

The left side of the slide features a vertical decorative panel with a light blue background and a faint, stylized ECG waveform. A solid black vertical bar is positioned on the far left edge of this panel.

Medical Surveillance

- Investigations Continued:

- Bedside Biochemical
- MDT
- Audiometry
- Spirometry
- Vision Screening
- ECG/Exercise Tolerance
- Heat Tolerance
- Questionnaires: HAV, Ergonomics, K10, Epworth, WAH, Confined Spaces Etc

Medical Surveillance

- Bedside Biochemical Continued
 - Glucose
 - Haemoglobin
 - Cholesterol
 - Dipstix



Medical Surveillance

- MDT Continued
 - Drug policy essential
 - Procedure outlined
 - Results interpreted
 - Procedure for positive tests
 - Cannabis
 - “Zero tolerance”

Medical Surveillance

■ Audiometry Continued

- Instruction 171
- Baseline Audiogram
- Who can perform?
- PLH
- PLH Shift
- NIHL
- Disability percentage calculation
- Controls (HCP)

Medical Surveillance

- Spirometry Continued
 - Why is it performed
 - Restriction vs obstruction
 - Who can perform it?
 - Acceptability & Repeatability
 - Compensated conditions
 - X-rays & pneumoconiosis



Medical Surveillance

- Vision Screening Continued
 - Defined
 - Keystone vs Snellen
 - Components
 - Critical Occupations

Medical Surveillance

- ECG/Exercise Tolerance Continued
- Heat Tolerance
- Questionnaires: HAV, Ergonomics, K10, Epworth, Etc

Medical Surveillance

- Heat Tolerance/Cold Stress, Thermal Continued
 - When is it performed
 - Extreme weather conditions

A stethoscope is shown in a dark, monochromatic setting. The chest piece is in the foreground, and the tubing extends across the frame. The background is a dark, textured surface.

Medical Surveillance

Questionnaires:

- HAV
- Ergonomics
- K10
- Epworth
- Working at Heights
- Confined Spaces

Medical Surveillance

- Biological Monitoring & Toxicology

- Monitoring of exposure to chemicals using markers to quantify exposure to such chemicals
- E.g Pesticides (Organophosphate)

Medical Surveillance

- Fitness Certificates Outcomes

- Fit to work
- Fit with Restrictions
- Temporarily unfit
- Unfit to work
- Duration is based on exposure and reasonable expectation

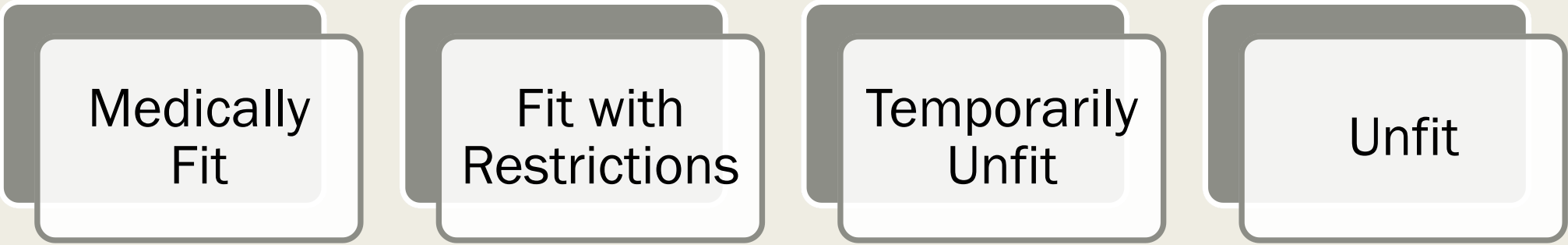


OCCUPATIONAL
HEALTH: THE SA
PERSPECTIVE &
APPROACH

QUESTIONS

BREAK

Medical Surveillance Outcomes



Medically
Fit

Fit with
Restrictions

Temporarily
Unfit

Unfit

Medical Surveillance Outcomes: Unfit Employees

Reasonable
Accommodation

Redeployment

Medical
Boarding

Temporary
Disability

Permanent
Disability

Medical Surveillance Outcomes: Unfit Employees

Referrals to treating physician

Review for outcomes

Reasonable accommodation/redeployment

Consider incapacity

Occupational Health in Agricultural Industry

The background of the slide is a faded, high-angle photograph of a construction site. A large tower crane is visible on the left side, extending towards the top right. In the foreground and middle ground, there are several tall, rectangular concrete structures under construction, surrounded by extensive scaffolding. Silhouettes of workers can be seen on the scaffolding, and a large concrete slab is being lowered into place by a crane hook in the upper right quadrant. The sky is a mix of orange and yellow, suggesting a sunset or sunrise.

■ Risk Assessment

- Assess and identify hazards
- Evaluate exposure
- Calculate and quantify/grade risk
- Design controls
- M & E
- Start over

Occupational Health in Agricultural Industry

- Occupational Health Risk Assessment
- Risk Grading/Quantifying/Communication
- Implement Controls
- Monitoring & Evaluation
- Review
- Occupational Risk Exposure Profile
- Medical Surveillance Matrix

Occupational Health in Agricultural Industry

- Medical Surveillance
 - Pre-employment
 - Periodical
 - Fitness to Work
 - Return to Work
 - Exit Medicals



Occupational Health in Agricultural Industry

- Medical Tests
 - Spirometry/ Lung Function Tests
 - Audiometry/Hearing Tests
 - Vision Screening
 - Ergonomic Screening
 - Sideroom Tests



Occupational Health in Agricultural Industry

- Biological Monitoring
 - Done with Medicals
 - Seasonal (Baseline, Post-dosing)
 - Prethroids
 - Organophosphates
 - Interpretation

Other Functions

- Incapacity Management
 - *How to approach it (Procedure)*
 - *Who to refer*





Other Functions

- Occupational Injuries
- Occupational Diseases
- When to notify
- Documents involved
- Compensation cases

Other Functions

- Advisory

- advising management on anything that has to do with health.

OHS Setup



- Onsite Clinic
 - Owned by employer, run by employer
 - Pros & Cons

OHS Setup

- Mobile Clinic

- Often operated by service provider/contractor

- Pros & Cons

OHS Setup

- Onsite, Third-party Managed
 - Pros & Cons



OHS Setup

- Walk-In Clinic
 - Privately owned
 - Advantages & Disadvantages for employer/farmer



A top-down view of a dark desk. In the upper left, a white notebook is open with a pair of black-rimmed glasses resting on its pages. To the left of the notebook is a silver pencil. Below the notebook is a white keyboard. In the lower right, a white cup of coffee sits on a matching saucer.

OHS Setup

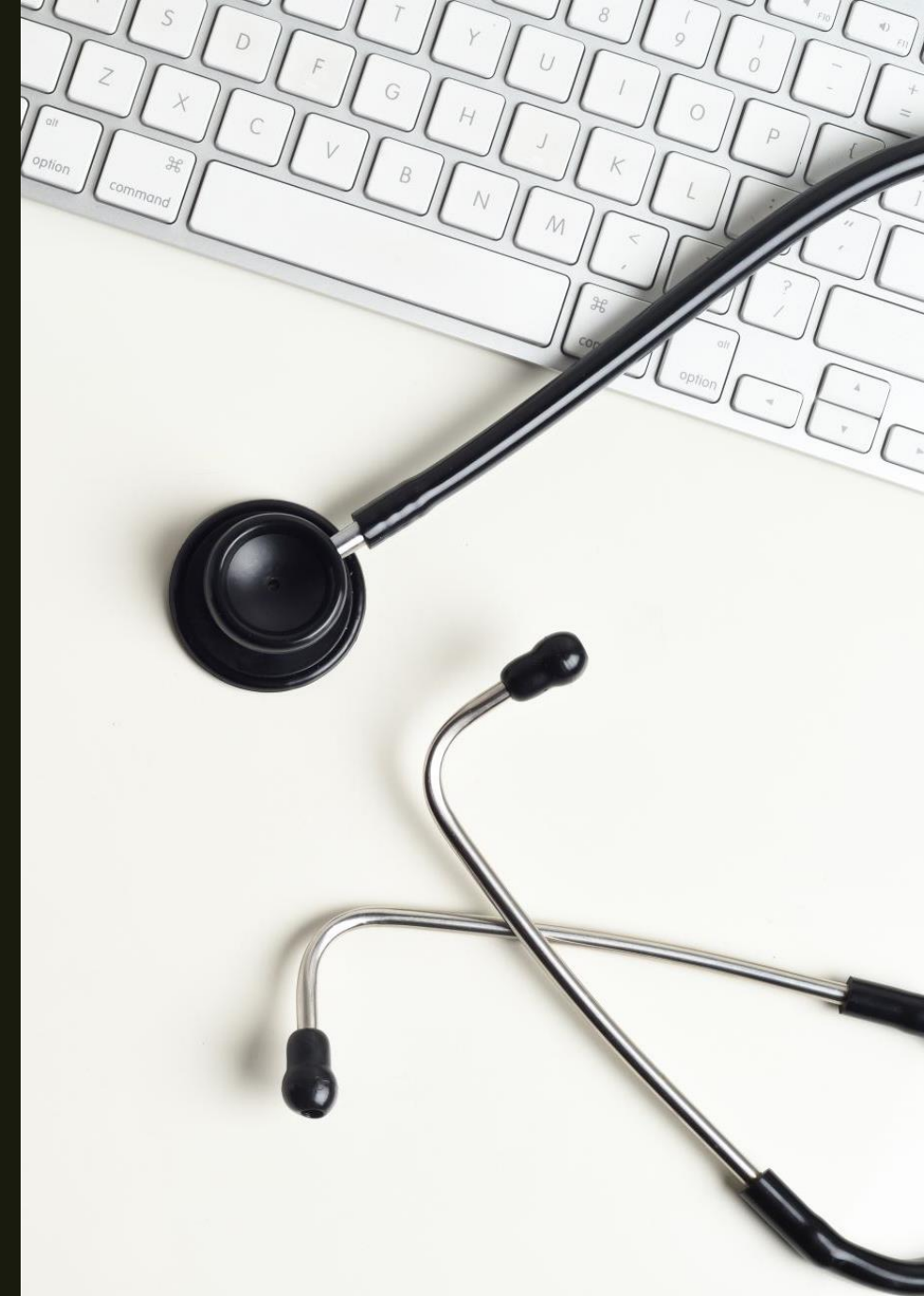
- Consulting Service
 - Uncommon in SA
 - Supplier provides Advisory
 - Clinical management
 - Incapacity Management

Case Study

- 58-year-old male presents loss of consciousness, abdominal cramps, foaming in the mouth, diarrhoea.
- He works on a farm as a general worker. They have been spraying crops for a week. It was windy during the day.
- The following day... a 50-year-old female presents at Emergency room with similar symptoms. On further enquiry it is established that she is his wife.

Approach

- Design exposure pathway
- Advise the farm on prevention & management of similar incidents



Exposure Pathway

Management & Controls

A person wearing a cowboy hat, a maroon shirt, and blue jeans is walking away from the camera in a grassy field. In the foreground, there are two large, round hay bales. The background features a line of trees with autumn foliage under a clear sky. The text "THE END" is overlaid in the center of the image.

THE END

QUESTIONS

