

# Occupational Health and Hygiene Directorate

## MEDICAL SURVEILLANCE IN THE FOOD INDUSTRY

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**employment & labour**

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# Introduction

- Medical surveillance is a planned program or periodic examination of employees exposed or potentially exposed to occupational hazards.
- It may include clinical examination, biological monitoring or medical tests of employees.
- It must be conducted by an occupational health practitioner or in some cases, by a occupational medicine practitioner.
- It is risk based, meaning that, not all employees might be included in the program.
- The main purpose of a medical surveillance is an early detection of ill health to employees and the effectiveness of exposure prevention strategies.
- It is thus important that the employer provides a health and safe working environment for his employees and that a risk assessment is conducted by a competent person who will be able to identify the potential hazards in the workplace.

# Introduction

- Section 8(1) of the OHS Act, Act 85 of 1993, states that “Every employer shall provide and maintain, as far as is reasonably practicable, a working environment that is safe and without risk to the health of his employees”
- Section 8(2) further states that an employer shall take steps as may be reasonable practicable to eliminate or mitigate any hazard or potential hazard to the safety or health of employees, before resorting to PPE
- Section 8(3) making arrangements for ensuring, as far as is reasonably practicable, the safety and absence of risks to health in connection with the production, processing, use, handling, storage or transport of articles or substances.

# Hazardous Biological Agents Regs

- Section 40(1)(b) of the OHS Act states that “the Minister may make regulations which in the opinion of the Minister are necessary in the interest of health and safety of persons at work or the health and safety of persons in connection with the use of plant or machinery or the protection of persons other than persons at work against risks to health and safety arising from or connected with the activities of persons at work, including regulations as to –
  - (i) The production, processing, use, handling, storage or transport of, and the exposure of employees and other persons to, hazardous articles, substances or **organisms** or potentially hazardous articles, substances or **organisms**, including specific limits, threshold or indices of or for such exposure.
- One of those regulations is the “**Hazardous Biological Agents Regulations**”.

# Scope of application

- HBA regulations apply to every employer and self-employed persons at the workplace where:
  - (a) HBA is deliberately produced, processed, used, handled, stored or transported; or
  - (b) An incident, for which an **indicative list** is given in **Annexure A** to these regulations occurs that does not involve a deliberate intention to work with an HBA but may results in persons being exposed to HBA in the performance of his or her work

# Indicative list of incidents

Incidents or exposure during work occurs at the following workplaces:

- (a) In a food production plant**
- (b) Where there is contact with animals or products of animal production
- (c) In health care, including isolation and post-mortem units
- (d) In clinical, veterinary and diagnostic laboratories
- (e) In sewage purification installations, and
- (f) In a general workplace

# Hazardous Biological Agents

- Biological agents are living organisms or products of living organisms
- They include viruses, bacteria and fungi and their metabolites, as well as parasitic worms and plants.
- HBAs are infectious and toxic, but they can also cause allergic reactions such as hypersensitivity pneumonitis, allergic rhinitis, some types of asthma and organic dust toxic syndrome.
- The workplace provides an ideal place for the proliferation of microorganisms and the spread of diseases as people spend approximately 90% of their time indoors.



# Risk groups of HBAs

There are 4 risk groups:

- Group 1: Unlikely to cause human disease
- Group 2: can cause human disease, may be hazard to employees, unlikely to spread to community, effective prophylaxis or treatment available
- Group 3: can cause severe human disease, may be a serious hazard to employees, may spread to community, prophylaxis or treatment available
- Group 4: cause severe human disease, serious hazard to employees, likely to spread to community, usually no prophylaxis or treatment available.

# Risk assessment

In terms of HBA regulations:

- (1) An employer or a self-employed person shall, after consultation with the relevant health and safety representative or relevant health and safety committee, shall cause a risk assessment to be made and thereafter at intervals not exceeding two years to determine if any person might have been exposed exposure to HBA occurred.
- (2) An employer shall inform the relevant health and safety representative or health and safety committee in writing of the arrangements made for the assessment contemplated in subregulation (1), give them reasonable time to comment thereon and ensure that the results of the assessment are made available to the relevant health and safety representative or health and safety committee, which may comment thereof;
- (3) When making the assessment, the employer or self-employed person shall keep a record of the assessment and take into account the following matters –

# Risk assessment

- (a) the nature of the HBA to which an employee may be exposed and the suspected route of exposure;
  - (b) where the HBA might be present and in what physical form it is likely to be;
  - (c) the nature of the work and work, processes and any reasonable deterioration in, or failure of, any control measures;
  - (d) what effects the HBA can have on an employee the period of exposure
- (4) An employer or a self-employed person shall conduct the risk assessment on the basis of all available information, including –
- (a) Classification of the HBA into the relevant risk group, according to its level of risk of infection

# Risk assessment

- (b) Recommendations from the manufacturer, supplier or a competent person regarding control measures necessary in order to protect the health of persons against such agents as a result of their work;
  - (c) Information on diseases that may be contracted as a result of the activities at the workplace;
  - (d) Potential allergenic or toxic effects that may result from the activities at the workplace; and
  - (e) Knowledge of diseases from which employees might be suffering and which may be aggravated by conditions at the workplace.
- (5) An employer shall review the assessment required by subregulation 1 forthwith, if there –
- (a) Is a reason to suspect that the previous assessment is no longer valid; or
  - (b) has been a change in a process involving a HBA; or in the methods, equipment or procedures in the use, handling, control or processing of HBA, and the provisions of subregulations (2), (3) and (4) shall apply.

# Medical surveillance

- Under the OHS Act, medical surveillance is defined as “**a planned programme or periodic examination (which may include clinical examinations, biological monitoring or medical tests) of employees by an occupational health practitioner or, in prescribed cases, by an occupational medicine practitioner**”.
- The Hazardous Biological Agents Regs states that:
  - (1) An employer shall ensure that an employee is under medical surveillance if –
    - (a) the results of the risk assessment indicate that an employee might have been exposed to HBA;
    - (b) the exposure of the employee to any HBA hazardous to his or her health is such that:
      - an identifiable disease or adverse effect to his or her health may be related to the exposure,

# Medical surveillance

- there is a reasonable likelihood that the disease or effect may occur under the particular conditions of his or her work, and
  - there are techniques such as pre-clinical biomarkers, where appropriate, for detecting sensitisation to allergens or an inflammatory response associated with exposure to diagnose indications of the disease or the effect as far as is reasonably practicable; or
- (c) an occupational health practitioner recommends that the relevant employee should be under medical surveillance, in which case the employer may call upon an occupational medicine practitioner to ratify the appropriateness of such recommendation.
- (2) In order to comply with the provisions of subregulation (1), the employer shall after extensive counselling and education offer the employee the opportunity to have –

# Medical surveillance

- (a) An initial health evaluation, which should be carried out by an occupational health practitioner immediately before or within 14 days after a person commences employment, where any exposure exists or might exist, which comprises –
  - i. an evaluation of the employee's medical and occupational history;
  - ii. a physical examination: and
  - iii. any biological tests and other appropriate medical tests or any other essential examination that is the opinion of the occupational health practitioner is desirable in order to enable the practitioner to do a proper evaluation.
- (b) Periodic medical examinations and tests in cases where a HBA is known to be capable of causing persistent or latent infections which:

# Medical surveillance

- i. in the light of present knowledge, are un-diagnosable, until signs or symptoms develop;
- ii. can have particularly long incubation periods
- iii. can result in an illness which is recurrent in spite of treatment; and
- iv. are known to have serious long-term effects.

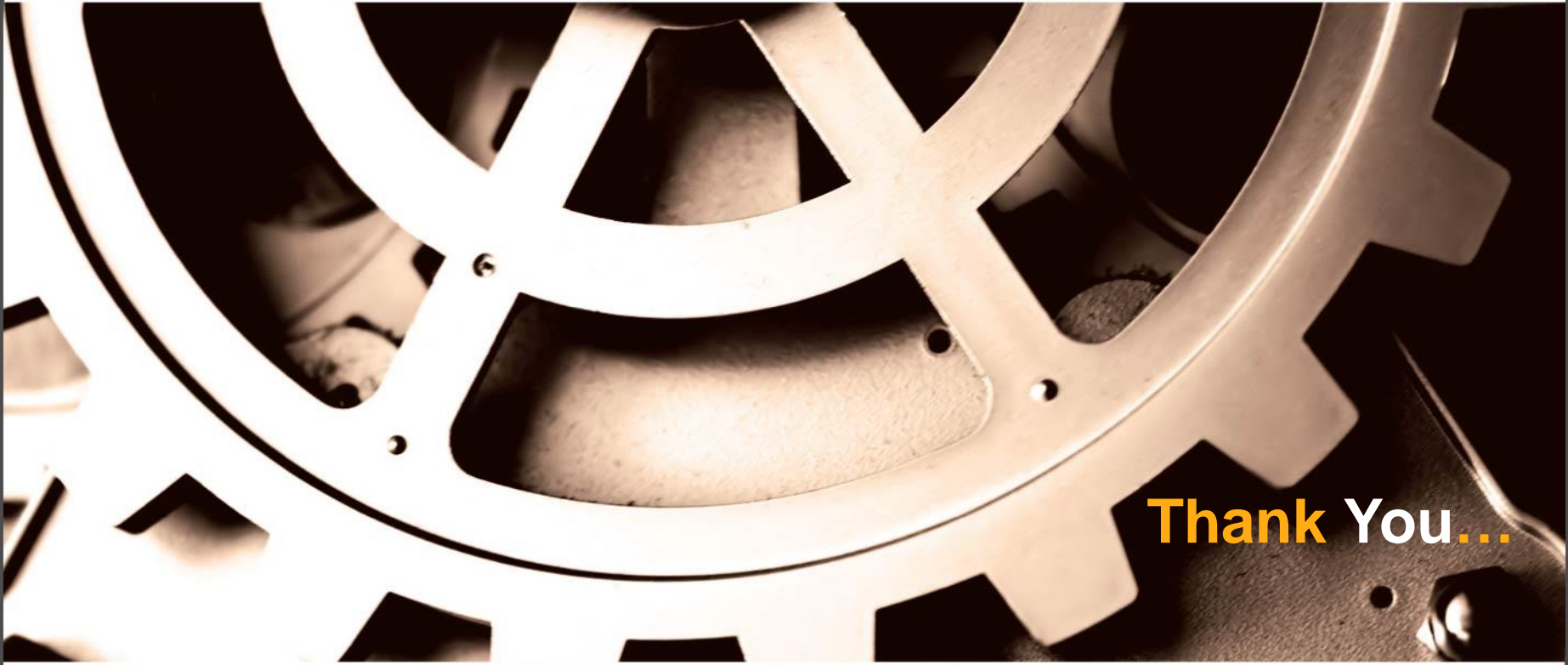
All tests and examinations as contemplated in paragraphs (a) and (b) shall be conducted according to a written medical protocol.

- (3) The employer shall, in accordance with regulation 8 of the General Administrative Regulations, investigate and record all incidents that result or might result in infections or the death of an employee.
- (4) All occupational health practitioners shall submit to the health and safety committee for approval a written protocol for procedures to be followed when dealing with abnormal results.



# Conclusion

- The prime purpose of medical surveillance is prevention.
- The medical surveillance program should have a clearly defined purpose/objective and a defined target population and testing facilities
- It may include questionnaires, physical examinations and medical testing.
- The availability of effective interventions is an important consideration in establishing a medical surveillance program
- It is important that a clear plan is established for interpreting the results and presenting the findings to employees and management of the affected work areas.



**Thank You...**