The Compensation of Allergic Disease
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Outline

- Legal framework and policies
- Allergic occupational diseases
- Diagnosis of occupational allergic disease
- Compensation
- Challenges

Legal statute :

Compensation for Occupational Injuries and Diseases Act ,1993.

Scope – All workers except military and private domestic workers

Function – To compensate employees who become injured or diseased during the course of / or as a result of their work

Definition: Occupational disease

- A disease arising out of and contracted in the course of an employee's employment and which is listed in schedule 3 of the Act
- Requirement to report within 14 days of gaining knowledge of such a condition

Scope of problem

Table 8
Occupational Disease Reported

Occupational Disease Reported	2001	2002	2003	2004	2005
Noise Induced Hearing Loss (NIHL)	1465	1952	2549	2724	1823
Post Traumatic Stress Disorder (PTSD)	970	1624	1325	1297	839
Tuberculosis of the lungs (in health care workers)	211	500	384	384	323
Dermatitis	217	203	203	227	203
Pneumoconiosis	193	182	302	189	109
Occupational Asthma	104	168	214	165	103
Repetitive Stain Injuries	*	40	24	82	71
Mesothelioma	201	20	17	28	16
Irritant Induced Asthma	*	*	*	7	16
Lung Cancers	*	*	*	4	1
Chronic Obstructive Airways Disease (COAD)	*	*	*	17	13
Diseases caused by chemical agents	*	*	*	69	15
Diseases caused by physical agents, excluding noise				5	13
Diseases caused by biological agents, excluding TB				75	228
Others	*	*	*	85	49
Total	**3361**	**4689**	**5018**	**5358**	**3822**

Background

Inadequate policies and procedures for the submission, adjudication and awarding compensation for occupational diseases:

- under-diagnosis and inadequate reporting (lost opportunities for prevention)
- **incomplete submission of claims (poor quality test results, exposure histories)**
- no transparency in the formulation and implementation of criteria for assessing permanent disablement (inequity)
- poor follow up of workers with occupational diseases resulting in no TTD, continued exposure, further deterioration and increasing disablement

Formulation of Circular Instructions

- **Objective**: Framework for reporting, assessing impairment and awarding compensation for occupational diseases

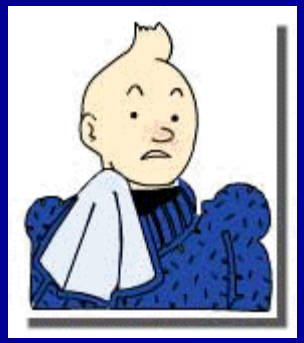
- **Scope of CI**:
  - Definition: consensus, internationally accepted
  - Diagnosis: best practice, implementable in S.A. situation
  - Impairment: AMA and other international guidelines
  - Benefits: criteria for assessing disablement (PD) explicit
  - Reporting: standard forms, identify risk factors

Implications of Circular Instructions

- Standard guidelines for the diagnosis and evaluation of occupational diseases
- Preventive approach (recommend removal of employee from exposure)
- Income security: payment of TTD while employee is removed from the work exposures
- Equitable compensation: uniform determination of disablement (PD)

Allergic Conditions which are Compensable and listed in Schedule3

- Respiratory Diseases
  - Occupational Asthma
  - Extrinsic allergic alveolitis



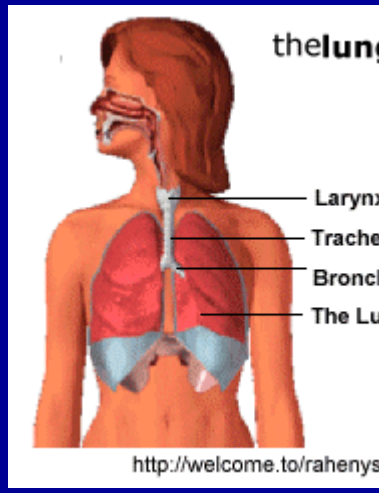
- Occupational contact dermatitis
  - Allergic contact dermatitis

- Work-related upper respiratory tract disorder
  - Allergic rhinitis

Occupational asthma

Asthma caused by one of the following sensitizing agents

Fungi or spores
Proteolytic enzymes
Organic dust
Isocynates
Metals:platinium, nickel, vanadium, cobalt, chromium salts
Hardening agents: including epoxy resins
Acrylic acids or derived acrylates
Soldering or welding fumes
Substances from animals or insects
Vapours or fumes of formaldehyde, anhydrides and amines
Latex



Worker's compensation system (COIDA) recognises all the various entities of WRA

TABLE 15.3: DIAGNOSTIC CRITERIA FOR WORK-RELATED ASTHMA ENTITIES COMPENSABLE UNDER THE WORKER'S COMPENSATION SYSTEM (COIDA) IN SOUTH AFRICA

Occupational asthma (immunological) as per Circular Instruction 176*	Occupational asthma (irritant-induced) as per Circular Instruction 177*	Work-aggravated asthma as per Circular Instruction 184*
Requires all four criteria (A–D): (A) A medical practitioner's diagnosis of asthma and physiological evidence of reversible airways obstruction or airways hyperresponsiveness. (B) An occupational exposure preceding the onset of asthmatic symptoms. (C) An association between symptoms of asthma and work exposure. (D) An exposure and/or physiological evidence of the relationship between asthma and the workplace environment (Requires D1 and preferably one or more of D2–D5): (1) Workplace exposure to agent reported to give rise to occupational asthma. (2) Work-related changes in FEV1 or PEFR. (3) Work-related changes in serial testing of non-specific bronchial hyperresponsiveness (e-g methacholine challenge test). (4) Positive specific bronchial-challenge test. (5) Positive SPT or raised specific IgE antibody level to the suspected agent.	Requires all five criteria: (1) Medical history indicating the absence of pre-existing asthma-like complaints. (2) Onset of symptoms after a single or multiple exposure(s), incident(s) or accident(s). (3) An occupational exposure to a gas, smoke, fume, vapour or dust with irritant properties. (4) Onset of symptoms within 24 hours of exposure with persistence of symptoms for at least three months. (An association between symptoms of asthma and exposure). (5) Presence of airflow obstruction on pulmonary function tests and/ or presence of non-specific bronchial hyperresponsiveness on tests done at least three months after exposure.	Requires all five criteria: (1) Medical history indicating pre-existing asthma or history of asthmatic symptoms, prior to the start of employment or exposure to the known aggravating agent. (2) Presence of work-related exposures preceding and/or associated with the onset of an asthmatic attack or the worsening of symptoms. (3) Presence of work-related factors known to aggravate asthma symptoms (e.g. cold air, dusty work, chemical or biological irritants, indoor air pollutants, physically strenuous work, second-hand smoke) (4) Increase in symptoms or medication requirements, or documentation of work-related changes in PEFR or FEV1 after start of employment or occupational exposure. (5) Presence of reversible airflow obstruction and/or non-specific bronchial hyperresponsiveness on pulmonary function testing.

As published in the *Government Gazette*, Republic of South Africa, Pretoria

Extrinsic allergic alveolitis:

Caused by the inhalation of the following organic dusts and chemicals inherent to the work process; moulds, fungal spores or any other allergenic proteinaceous material or 2,4 toluene di-isocyanates.

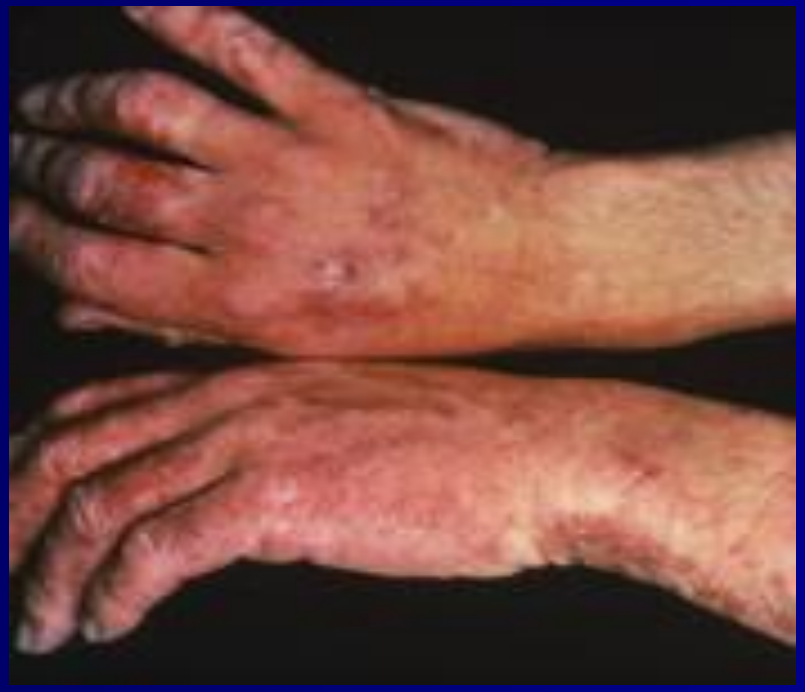
WRURTD

Work-related upper respiratory tract disorders

Upper airways disorders e.g. allergic rhinitis caused by recognized sensitizing agents or irritants inherent to the work process

Occupational contact dermatitis

Allergic contact dermatitis caused by physical, chemical or biological agents



Diagnosis and Compensation of Allergic disease

Diagnosis of Occupational Asthma

Major and Minor diagnostic criteria

1. **An occupational exposure preceding the onset of asthmatic symptoms**
2. **An association between symptoms of asthma and work exposure**
3. **A medical practitioners diagnosis of asthma and evidence of reversible airways obstruction**

4. Evidence of relatonship between asthma and workplace environment (1 or more)

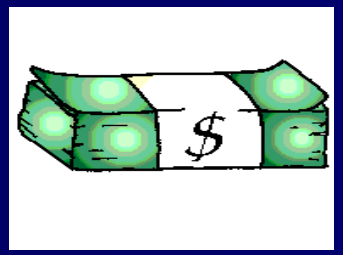
- Workplace exposure to agent reported to give rise to occupational asthma
- Work-related changes in FEV1/ PEFR
- Work-related changes in serial testing of non-specific bronchial hyperresponsiveness
- Positive specific bronchial challenge test
- Positive skinpricktest or raised specific IgE antibody level to the suspected agent

Management of compensation process

- Medical practitioner is legally obliged to report occupational disease to the Chief Inspector of the Department of Labour (Occupational Health and Safety Act, 1993)

- Compensation for Occupational Injuries and Diseases Act, 1993
  - Pays medical expenses, temporary total disablement and permanent disablement

Compensation for occupational asthma based on the presence of permanent disablement:



Degree of impairment after 2 years or when maximal medical improvement have been reached

- Proof of sensitization e.g. Skin prick test or IgE in workers whose symptoms have resolved or maximal medical improvement has been reached
- Results of lung function tests when maximal medical improvement reached and FEV1 measured after bronchodilator administration
- Medication use

Assessment of impairment for occupational asthma under Circular Instruction 176 of COIDA

Table I. Parameter 1: Postbronchodilator FEV_1

Score	FEV_1% Predicted
0	>Lower limit of normal (80)
1	70 – lower limit of normal
2	60 – 69
3	50 – 59
4	<50

Table II. Parameter 2: Minimum medication prescribed

Score	Medication
0	No medication
1	Occasional bronchodilator, not daily
2	Occasional or daily bronchodilators and/or daily low-dose inhaled steroid (<800 micrograms beclomethasone or equivalent)
3	Daily bronchodilator and/or daily high dose inhaled steroid (>800 micrograms beclomethasone or equivalent) and occasional (1-3/year) course oral steroid.
4	Daily bronchodilator and/or daily high dose inhaled steroid (>800 micrograms beclomethasone or equivalent) and frequent (>3/year) course systemic steroid or daily oral steroid.

Table III. Summary impairment scores in cases accepted as occupational asthma

Impairment total Score	Permanent disablement
0-1	15%
2	20%
3	30%
4	40%
5	50%
6	60%
7	70%
8	80%
Fatal case of OA	100%

Sensitisation associated with a total score of zero (0):

For occupational asthma, where sensitisation persists after the worker has been removed from the specific work environment, and lung function is not impaired and there is no need for medication, a PD of 15% will be awarded.

Compensation of Work-related upper respiratory tract disorders

Diagnosis

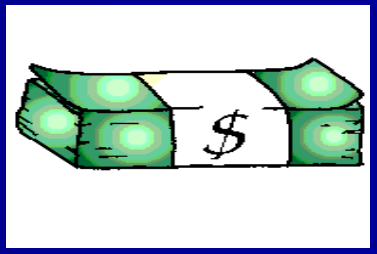
- Medical practitioner's diagnosis of WRURTD
- Workplace exposure to agent known to give rise to WRURTD
- A chronological relationship between the symptoms of WRURTD and work environment
- Evidence of sensitizaton to a known workplace allergen where applicable

Compensation of WRURTD

Evidence of persistent sensitization
15% PD

Use of chronic medication
20% PD

Presence of erosion / nasal perforation
5-15% PD



Circular Instruction 181

- Definition of occupational contact dermatitis
- Requirements for Diagnosis
  - Diagnosis by medical practitioner or dermatologist where disease is recurrent or chronic
  - Photographs
  - Exposure history in the workplace
  - Confirmatory testing (patch tests)
- Assessment of impairment
  - Body part involved
  - Treatment required to control
- Required paperwork
- Allowance for compensation for occupational irritant and allergic contact dermatitis, and occupational vitiligo

Dermatitis

Diagnosis

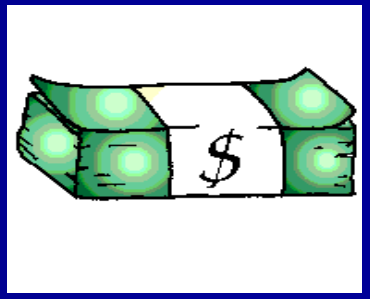
- A diagnosis by medical practitioner including detailed history, nature and distribution of skin lesions and photographs
- History of occupational risk factors
- Occupational exposure to a known causative agent and a chronological relationship between dermatitis and the work enviropnment
- Confirmatory skin test e.g. patch test
- Dermatologist's opinion when dermatitis is recurrent or resistant to Rx for more than 6 consecutive weeks

Compensation of Dermatitis

Impairment determined by a scoring system based on:

- Body surface area or affected body part e.g. hand 10 , face 10
- Chronic medication need e.g. topical steroids 5 , systemic steroids 10
- Total score is translated into a % PD
- Persistent sensitization 10%

Maximum PD =50%



Impairment calculation

Table 1: Affected Body Part	
Aspect of the body affected	**Score**
Hand (each)	10
Forearm (each)	3
Upper arm (each)	1
Face	10
Neck	1
Chest	3
Back	4
Foot (each)	10
Thigh (each)	2
Calf (each)	2

Table 2: Chronic Medication Required	
Medication	**Score**
No treatment	0
Anti-pruritics and/or emollients	2
Topical steroids	5
Systemic steroids	10

Table 3: Summary of Impairment Scores for Dermatitis	
Total Impairment Score	**Permanent Disablement**
1 – 5	10 %
6 – 10	15%
11 – 15	20 %
16 – 20	25 %
21 – 25	30 %
26 - 30	35%
31 – and above	50%

4. Assist with worker's compensation claim

- WRA has serious *socio-economic consequences* – one third of workers with occupational asthma are unemployed at 6 yrs after diagnosis
- The worker's compensation dispensation in South Africa (COIDA) covers all types of work-related asthma
- Medical practitioners should assist patients by completing the medical report required in support of the compensation claim after each visit
- Claim acceptance accords the following *benefits* to the patient:
  - medical expenses (tests and treatment)
  - loss of wages for periods absent from work
  - permanent disablement benefits (lump sum or pension)
  - additional compensation if employer negligent or if disability worsens

Medical practitioner assistance of the patient with a worker's compensation claim will ensure preservation of income and improved quality of life

Health and socioeconomic consequences of occupational respiratory allergies: a pilot study using workers' compensation data.

Am J Ind Med. 1988;14(3):291-8.

Workers compensation claims 1975-1981 were reviewed for demographic, risk factor, and exposure data.

244 claims reassessed for consistency with criteria for occupational respiratory allergies

28% of the 154 claimants who met the criteria were granted a permanent disability award from the workers' compensation board (WCB).

2-8 years after claim allowance, 77% of those traced reported improvement, but 59% still required medication and 85% still suffered symptoms.

76%s left their employer.

75% of those who left did so due to their allergic condition; 95% suffered long-term income loss.

Older workers with longer duration of symptoms and longer duration of exposure prior to the claim had the worst prognoses.

Problems in diagnosis of work-related allergic disease

- Sensitization may develop over time (need for surveillance of workers exposed to workplace allergens)
- Increased likelihood of sensitization to high molecular weight proteins found in foods in workers who are atopic
- Relationship between atopy and irritant –induced conditions such as asthma or rhinitis e.g. work-aggravated asthma
- Irritant contact dermatitis may predispose to allergic contact dermatitis due to loss of skin barrier function
- Need to review circular instructions e.g. emerging allergens and new treatment modalities.

The Compensation of Work-Related Allergic disease in a nutshell

- Poor recognition and underreporting
- Needs to be reported and assessed in accordance with relevant circular instructions
- Early diagnosis important to prevent complications and morbidity associated with allergic disease and provide access to optimal treatment, compensation and rehabilitation
- Primary prevention is controlling exposure

Referral/advice centres for assistance with occupational diseases

Cape Town

- Occupational Medicine Clinic (E16), Groote Schuur Hospital, (021) 404 4369
- Respiratory Clinic, Tygerberg Hospital, (021) 938 5524

Johannesburg

- National Institute of Occupational Health, Braamfontein, (011) 712 6400

Durban

- Occupational Medicine Clinic, King Edward Hospital, (031) 360 3512/3 or (031) 260 4507