Department of Social Security

Social Security Administration Act 1992

Inflammation or Ulceration of the Mucous Membrane of the Upper Respiratory Passages or Mouth produced by Dust, Liquid, or Vapour

Report by the Industrial Injuries Advisory Council in accordance with Section 171 of the Social Security Administration Act 1992 on the question whether the present prescription of prescribed disease PD D4 (Inflammation or ulceration of the mucous membrane of the upper respiratory passages or mouth produced by dust, liquid, or vapour in any occupation involving exposure to dust, liquid or vapour) should be changed and, if the conclusion was that it should, for recommendations on revision of the prescription.

Presented to Parliament by the Secretary of State for Social Security

by Command of Her Majesty

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APRIL 1995

INDUSTRIAL INJURIES ADVISORY COUNCIL

The Rt Hon Peter Lilley
Secretary of State for Social Security,

Dear Secretary of State

Occupational Rhinitis

In 1993 Minister of State asked the Industrial Injuries Advisory Council to consider whether the present prescription of Prescribed Disease (PD) D4 (Inflammation or ulceration of the mucous membrane of the upper respiratory passages or mouth produced by dust, liquid or vapour in any occupation involving exposure to dust, liquid or vapour) should be changed and, if the conclusion was that it should, for recommendations on revision of the prescription. The Council decided that a full study should be carried out. That work is now complete and our report is attached.

The Council has concluded that the terms of the current prescription need to be changed to make them more precise and to bring them into line with current scientific thinking. The Council recommends that the current definition of PD D4 should be altered to read "allergic rhinitis" and that the causative agents (a) to (w) listed against PD D7 (Asthma) should be given as causative agents. The Council also recommends that a new prescription should be introduced for chrome ulceration of the mucous membrane and chrome dermatitis and that this prescription should be under the list of chemical agents. The Council will keep the list of causative agents under review and may recommend additions to it.

The Council's view is that non-allergic rhinitis should not be prescribed. The condition is extremely common, the symptoms are short term, mild and not usually disabling. There is no good epidemiological evidence linking the condition to occupational causes.

Yours sincerely,

Professor J M Harrington, CBE
Chairman

17 November 1994

Report on the Prescription of Prescribed Disease PD D4 – Inflammation or Ulceration of the Mucous Membrane of the Upper Respiratory Passages or Mouth produced by Dust, Liquid, or Vapour.

Introduction

1. The Minister of State wrote to the Council on 23 September 1993 asking for consideration and advice on the question of whether the present prescription of Prescribed Disease (PD) D4 should be changed and, if the conclusion is that it should, for recommendations on the revised terms of prescription. An increase in the numbers of claims for the disease brought about by a take up campaign, mainly in the North East of England, highlighted the very general nature of the present terms of prescription and the difficulty they presented in deciding claims. This in turn raised questions about the precise nature, causes and effects of the diseases.

2. The Council's initial research identified that the origins of the prescription of the present PD D4 are to be found in the Workmen's Compensation Act of 1906. However, since then, the wording of the prescription, and its arrangement within the list of prescribed diseases, has changed on several occasions. In the circumstances the Council decided, therefore, that a full review of the present scientific evidence for prescription should be undertaken.

3. The investigation was announced by means of a general press notice, which was also sent to individuals known to have an interest or expertise in the conditions. The Council received written and oral evidence from several sources, and carried out a review of published literature. A list of those providing evidence is to be found in Appendix 1. The Council were represented at a Symposium on Occupational Rhinitis held in York.

History of Present Prescription of PD D4

4. The 1906 Workmen's Compensation Act provided for compensation for ulceration of the mucous membranes of the nose and mouth. The original occurrence which lead to the inclusion of the condition on the list of diseases was the experience of men unloading spathic ore (iron carbonate ore that had been heated to convert it to iron oxide). Ore from some mines caused bleeding of the gums. The company importing the ore changed the supply source of the ore as a preventative measure.

5. About 1918 the disease was sub divided and brought together with dermatitis under disease number 11 (11a – dermatitis, 11b – ulceration of the skin and 11c – ulceration of the mucous membrane). This was then incorporated into the 1948 Industrial Injuries Scheme under prescribed disease number 24(b) inflammation, ulceration of the skin or of the mucous membrane of the upper respiratory passages or mouth. A further change was made with the revision of the prescribed list in 1958, when the mucous membrane conditions were again separated from other skin conditions to form the present PD D4 prescription.

6. Chrome ulceration has, also, been on the list of prescribed diseases since 1907. Currently chrome ulceration is only specifically included in the prescription of dermatitis, although chrome ulceration of the nose is covered by PD D4.

Present Statutory Prescription Requirements

7. The conditions which must be satisfied before a disease may be prescribed in relation to any employed earners are set out in section 108(2) of the Contributions and Benefits Act 1992, (formerly section 76(2) of the Social Security Act 1975). This requires that the Secretary of State for Social Security should be satisfied that the disease:–

(a) ought to be treated, having regard to its causes and incidence and any other relevant considerations, as a risk of their occupations and not as a risk common to all persons; and

(b) is such that, in the absence of special circumstance, the attribution of particular cases to the nature of the employment can be established or presumed with reasonable certainty.

In other words, a disease can only be prescribed if there is a recognised risk to workers in a certain occupation and the link between disease and occupation can be reasonably presumed or established in individual cases.

Present evidence for prescription

8. Inflammation of the nasal mucous membrane, or rhinitis, is an extremely common condition. It occurs throughout life most often as the "common cold". Many different causes for rhinitis have been identified and in many instances the disease process is multifactorial.

9. Most causes of rhinitis present a similar clinical picture and although some parameters of altered nasal function can be measured, interpretation of the results is uncertain. There are many additional factors, such as smoking, atmospheric pollution and the drying effects of central heating which can make rhinitis worse. Identifying specific causes is, therefore, difficult and, in many cases, impossible.

10. Rhinitis is usually short-lived and most cases are not associated with significant disability. Occasionally, however, a more chronic state will develop with ulceration or perforation of the nasal septum, or the onset of hyposmia or anosmia (partial or total loss of the sense of smell). Allergic rhinitis may precede or occur in conjunction with a specific allergic asthma.

11. Most cases of occupational rhinitis (OR) appear to be related to the presence of allergens or irritative substances in the workplace. We have considered OR under three headings, ulceration or perforation of the nasal septum, allergic rhinitis and non-allergic rhinitis.

Ulceration or perforation of the nasal septum

12. Various substances have been suggested as causing ulceration or perforation of the nasal septum. These include hexavalent chromium salts (in plating, tanning, dyeing, photographic processes and manufacture of dichromate), anhydrous sodium carbonate, arsenic and compounds, organic compounds of mercury (especially mercury fulminate), alkaline dusts (soap powders), hydrofluoric acid and fluorides, capsaicin (capsicum from chillies), vanadium, dimethyl sulphate, copper salts and lime. Of these, the only substance for which there is strong evidence for a cause and effect relationship, is hexavalent chromium, which also causes ulceration of the skin.

Allergic rhinitis

13. The nasal mucosa can be considered as a continuation of the mucous lining of the trachea and bronchi. There is also a well established relationship between

allergic rhinitis and asthma. It is, therefore, not surprising that the same substances which may give rise to occupational asthma, may also cause OR. Animal, vegetable and mineral substances have all been shown to produce a nasal allergic response. In a Finnish study, occupational exposure to animal epithelia, flour, wood dust and cotton fibres were all shown to have produced significant allergic rhinitis. Also implicated were various beans, spices and chemical reagents, including persulphates, pyrocatechol, reactive dyes, phthalic anhydride and nickel sulphates. The authors also pointed out that it is possible for those substances which produce an allergic response in the nose to cause rhinitis by irritation.

14. There are a large number of other papers on the subject of occupational allergic rhinitis. The substances implicated are used in a wide variety of occupations including working with animals, feed stuffs, wood-working, hairdressing and chemical industries.

Non-allergic rhinitis

15. The position regarding non-allergic occupationally associated rhinitis is much less clear. Most of the recent literature on the subject deals with the histopathological changes observed in the nasal mucosa of those exposed to a variety of substances but especially nickel. While there seems little doubt that nickel does produce epithelial changes in the mucus membrane of the nose, including squamous metaplasia and dysplasia, the significance of this is far from clear. It is suggested that such change may be a precursor to the development of nasal cancer, but the grounds for this belief are tenuous and indirect.

16. There is insufficient evidence to support the prescription of any non-allergic causes of OR. Few cases of non-allergic rhinitis persist long enough to meet the 90 days requirement of prescribed diseases.

Conclusions on the Basis of Evidence

17. The present evidence suggests that

(i) chrome ulceration or perforation of the nasal septum is correctly on the prescribed list (but may need to be re scheduled – see below)

(ii) allergic rhinitis should be added to the prescribed list

(iii) no other conditions can be prescribed.

Proposals for altering the current prescription

18. The conditions of chrome ulceration of the mucous membrane and chrome dermatitis could form a new prescription under the list of chemical agents. If chrome dermatitis is included here then the mention of it under dermatitis (D5) would have to be deleted. A proposed wording for the prescription is:–

> Ulceration of the mucous membranes or the epidermis resulting from exposure to hexavalent chrome compounds.

19. The current definition of PD D4 could be altered to read:–

> Allergic rhinitis which is due to exposure to any of the substances listed.

In the second column of the regulation we recommend the list of causative agents listed in PD D7 (Asthma) lettered (a) through (w) should be given as causative agents. The Council will keep this list under review and may recommend additions to it. It is not recommended that the open category "(x) any other sensitising agent" be included in the list at present.

20. Non-allergic rhinitis can not be prescribed at present. Where there are serious effects these are most likely to be the result of considerable quantities of a particularly noxious substance; such occurrences would be covered by the accident provisions of the II scheme.

Compliance cost assessment

21. Until a few years ago there were very few claims for PD D4, and most of the awards were for chrome ulceration. However a take up campaign during the last three years or so, centred mainly in the North East, has produced several thousands of claims for various forms of rhinitis. This in turn has resulted in a huge increase in the number of enquiries mainly to past employers of claimants to confirm history and exposures. The Council's recommendations for the more precise represcription of PD D4 should reduce significantly the numbers of claims for PD D4 received in recent years and therefore the numbers of enquiries to employers asking for work history. The changes should therefore lead to a saving in administration costs for employers.

Prevention

22. The measures that can be taken to reduce the incidence of these diseases include:

(i) the elimination of the use of the substance;

(ii) the substitution, where possible, by materials whose chemical or physical nature is less hazardous;

(iii) total enclosure of the hazardous process;

(iv) local exhaust ventilation at the point of emission of the dust or vapour; and

(v) the wearing of personal respiratory protection and protective clothing.

23. The Control of Substances Hazardous to Health (COSHH) Regulations introduced in 1988 require employers to assess the risk of hazardous substances in the workplace, and where appropriate ensure regular health surveillance of employees. It is our hope that these measures are being undertaken. Not only will they reduce the incidence of occupational rhinitis, they will also reduce the number of cases of the more seriously disabling condition of asthma.

List of those giving evidence

Written evidence was received from:–

Dr W Rae, Dallas
Mr A J Parker, University of Sheffield
Mr A R Welch, Freeman Hospital Trust, Newcastle upon Tyne
Iron Trades Insurance Group
Sunderland TUC Unemployed Centre
Trades Union Congress

Oral evidence was given by:–

Mr V H Oswal, Teeside and Hartlepool Hospital Group

Professor M J Cinnamond FRCS(Ed), FRCSI, Professor of Otorhinolaryngology, Queen's University Belfast, a member of the Council, also attended and heard the evidence provided at the Symposium on Occupational Rhinitis held in York on 20 June 1994 by:–

Dr M Hytonen, Finnish Institute of Occupational Health
Dr W Rae, Environmental Health Centre, Dallas, Texas
Dr P Howard, Consultant Physician, Sheffield
Drs Welinder and Nielsen, Department of Occupational Environmental Health, Lund University
Mr A R Welch, Freeman Hospital Trust, Newcastle upon Tyne
Mr R Farley QC

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