Presumption that a disease is due to the nature of employment: coverage and time rules

Report by the Industrial Injuries Advisory Council in accordance with Section 171 of the Social Security Administration Act 1992 reviewing the coverage and time limits for the rules governing presumption that a disease is due to the nature of employment for the purposes of the Industrial Injuries Scheme.

Presented to Parliament by the Secretary of State for Work and Pensions
By Command of Her Majesty
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INDUSTRIAL INJURIES ADVISORY COUNCIL

Secretary of State for Work and Pensions

Dear Secretary of State,

REVIEW OF THE REGULATION GOVERNING PRESUMPTION THAT A DISEASE IS DUE TO THE NATURE OF EMPLOYMENT: COVERAGE AND TIME RULES

We present our review of the regulation governing presumption that a disease is due to the nature of employment, with specific emphasis on coverage and time rules.

Presumption is a cardinal feature of the Industrial Injuries Disablement Benefit (IIDB) Scheme, which underpins its administrative efficiency. It allows decision makers evaluating individual claims for IIDB to presume that a disease is due to occupation. This has the policy intention of sparing claimants the burden of gathering detailed evidence to demonstrate occupational causation, especially where this could be slow, costly, and difficult; and of streamlining the Scheme's administration, allowing it to be run in a simple, consistent and straightforward manner, with prudent, proportionate use of public funds. By avoiding a complex adversarial system of individual proofs, a much higher proportion of available funds can be delivered to claimants than is possible in civil proceedings (over 95%, versus 40-60%), and with greater speed.

The regulation[1] governing presumption and the related prescription schedule[2] set out the circumstances in which attribution of disease to occupation is more likely than not, based on a detailed scientific evaluation by the Council of the causal probabilities. Decision makers have the opportunity to rebut a claim if they consider there is proof that the disease was not caused by the occupational exposure set out in the prescription. Broadly, however, the regulation holds that when a claimant with a scheduled disease meets the schedule's occupational criteria, and the disease develops during that employment or within a month of leaving it, then it can be assumed to be due to the nature of their work.

However, the regulation is complex. Not all prescribed diseases attract the benefit of presumption, while some have time rules that are specific to them. More significantly, the principle was conceived in the early part of the last century at a time when most prescribed diseases developed swiftly and were liable to declare themselves during employment. By contrast, many diseases now covered by the Scheme, such as mesothelioma and other cancers, develop years or decades after leaving the causative employment. For such 'long latency' diseases the time course of the regulation (onset whilst in the job or within a month thereafter) is inappropriate.

Applying a more scientifically based time rule offers scope to strengthen further the Scheme's administrative efficiency, by identifying more explicitly for decision makers, medical advisors, tribunals and the Department the circumstances that justify presumption on the balance of probabilities, thus sparing stakeholders from the distraction, effort and costs of further evidence-gathering.

1 Social Security (Industrial Injuries) (Prescribed Diseases) Regulations 1985, Regulation 4.
2 Social Security (Industrial Injuries) (Prescribed Diseases) Regulations 1985, Schedule 1.

The Council has therefore reviewed how the presumption rule currently applies across the Scheme and whether its coverage and time limits should be updated. To do this, we have undertaken literature searches, consulted with experts in relevant fields, assembled various statistics, and held detailed discussions with Departmental officials over rule changes, disease by disease.

Of the 71 diseases currently scheduled, 49 are currently accorded presumption, representing over 90% of claims, assessments and awards in payment in recent times. For 27 of these diseases the changes proposed would see an extension of the interval over which presumption would apply; two diseases would be accorded presumption partially for the first time and for one it would be partially withdrawn.

Any cost as a result of these changes is likely to be small since (in March 2010) 96% of all awards in payment related to only 12 prescribed diseases, eight of which will not change and several of which, such as mesothelioma, appear already to be managed in the way we propose, despite current limitations in the drafting of Regulation 4. The Department anticipates an effective change in policy only in relation to seven uncommonly claimed diseases that attracted a total of about 300 new claims over a recent 10-year period.

The Council believes that the regulation can usefully be updated, however, not only for its potential to produce a potentially far greater improvement in administrative efficiency, but also in the interests of fairness and transparency, modernising the legal framework, and ensuring that the important principle of presumption remains thoroughly evidence-based.

For convenience, the changes that we recommend to Regulation 4 are summarised in Appendix 5 of this report, following the logic in Table 2. In the cases of four prescribed diseases (PD A3, B1, B4, B5),[3] amendments are also required to current terms of prescription, as detailed in paragraph 90.

Yours sincerely

Professor K Palmer
Chairman June 2014

3 PD A3 (Dysbarism, including decompression sickness, barotrauma, and osteonecrosis); B1 (anthrax); B4 (hookworm infection); and B5 (tuberculosis).

Summary

1. The Council presents here a review of the regulation governing the circumstances under which, when claimants apply for Industrial Injuries Disablement Benefit (IIDB), their disease can be presumed to be due to the nature of their employment (sometimes called "the causation question").

2. Presumption is a fundamental feature of the IIDB Scheme ("the Scheme"), which supports and promotes its administrative efficiency. It allows decision makers evaluating individual claims to presume that a disease is due to occupation. This has the policy intention, on the one hand, of sparing claimants the burden of gathering detailed evidence to demonstrate occupational causation of disease and, on the other, of streamlining the Scheme's administration, allowing it to be run in a simple, consistent manner, with proportionate use of public funds.

3. There is a direct link with the work of the Industrial Injuries Advisory Council (IIAC), which, in recommending prescription of a disease, sets out for the benefit of stakeholders the circumstances in which attribution of disease to occupation can be presumed on the balance of probabilities (i.e. to the civil standard of proof). Particularly for prescribed diseases whose attribution rests on probabilities established by research rather than clinical acumen, and which are therefore difficult to ascribe to occupation individually, the Council intends that the benefit of presumption should apply.

4. Legally, the opportunity to allow presumption in individual claimants is afforded by Regulation 4 of the Social Security (Industrial Injuries) (Prescribed Diseases) Regulations 1985.

5. Decision makers can rebut a claim if they consider there is 'proof to the contrary' that the disease was not due to the occupational exposure set out in the prescription. Broadly, however, the regulation holds that, when a claimant has the scheduled disease and has done the scheduled work, that disease can be presumed to be due to the nature of their work, if developed while employed in that work or within a month of leaving it (the 'standard' time rule).

6. However, the regulation applies differently to some prescribed diseases, involving alternative time rules, and not at all in relation to several others.

7. More importantly, while the standard time rule remains appropriate for diseases that are likely to manifest during employment (those on which the Scheme was first founded many years ago), it ill-fits many diseases since added to the prescription schedule and which are characterised by a slow onset, postdating employment by years or even decades. For these diseases, notably various cancers including mesothelioma, the regulation is no longer appropriate.

8. The Council has therefore reviewed how Regulation 4 currently applies across all of the 71 diseases covered by Scheme and whether its coverage and time limits should be updated.

9. At present, 49 of these 71 diseases are accorded presumption, representing over 90% of claims, assessments, and awards in payment during recent times.

10. For 27 prescribed diseases a good case can be made for extending or partially extending the interval over which presumption should apply. For several cancers that currently attract benefit under the Scheme (PD A1, C23 (a, b and e), C24a, C32, D3, D6, D8, D8a, D10, D11, D13), some orthopaedic disorders (PD A13, A14), and some infections (PD B2, B8b, B13) and other diseases or their manifestations (PD A2, A3, B6, C17, C18, C24 (b, c and d), C31, D9) which can remain asymptomatic for an interval or whose recognition may be delayed, the standard time rule should be substituted by a time frame for eligibility in which symptom onset is defined as "within the job or at any time thereafter". Similarly, for some infections and their manifestations (PD B1, B4, B7, B8a), the time course of events calls for somewhat longer periods of eligibility, ranging from 2 to 12 months from leaving the relevant employment.

11. In terms of the coverage of presumption, three amendments are recommended. Presumption does not presently apply to PD A12 (carpal tunnel syndrome), whereas the standard time rule can reasonably be applied where the causal exposure involves repeated flexion and dorsiflexion of wrist, as defined in part (b) of the exposure schedule for PD A12. Also, presumption does not extend to PD C22 (cancers associated with nickel refining before 1950), but it should do in respect of primary carcinoma of the nose or paranasal sinuses (PD C22a), a rare tumour whose occurrence in a worker with an appropriate work history would indicate a high probability of occupational causation. For PD B5 (tuberculosis) a case exists for partially withdrawing presumption in relation to workers whose exposures have arisen outwith the healthcare sector, the research evidence on attribution to occupation being weaker than for healthcare workers.

12. In the case of four prescribed diseases, amendments to current terms of prescription will be required to enable implementation of these recommendations. For three of these diseases (PD A3, B1, B4) this arises as the standard time rule, although appropriate for their usual clinical presentation (dysbarism, cutaneous anthrax, cutaneous hookworm), is too brief to address certain rare late-occurring effects (osteonecrosis, pulmonary anthrax, anaemia caused by hookworm infection) that are not presently distinguishable in each prescribed disease's definition. For PD B5 (tuberculosis), a need exists to redefine the exposure schedule, so that the terms of coverage of presumption can be allowed to vary between healthcare workers working in hospitals, mortuaries and laboratories and others who contract tuberculosis occupationally. The new definitions proposed to appear in the Schedule are contained in paragraph 90 of this report.

13. More generally, the regulatory changes we recommend are summarised in Appendix 5, reflecting the logic in Table 2.

14. These changes will have no effect on the Scheme for 41 of the 71 prescribed diseases and affect several others only in a minor way. To avoid any confusion amongst claimants about what action they should take, the Council has summarised the changes in Appendix 4. It is also assisting the Department in developing plain language guidance for stakeholders.

15. The Council has considered the possible effects of these rule changes on the Scheme as a whole. The impact on awards made under the Scheme is likely to be small, since (in March 2010) 96% of the total caseload related to only 12 prescribed diseases; for eight of these no change is recommended and for many of the remainder assessments appear already to be managed in line with proposed amendments according to Departmental advice, despite the limitations of Regulation 4.

16. However, the Council believes that the regulation can usefully be updated. This should assist in maximising administrative efficiency by identifying more explicitly the circumstances in which further evidence need not be gathered by decision makers. Change is also desirable in the interests of fairness, transparency and scientific clarity. The written reports of Judges (formerly known as Commissioners) of the Upper Tribunal indicate that Regulation 4 is closely read and observed. The recommendations in this report should modernise the framework surrounding presumption to ensure that this important principle has a sound underpinning, grounded in up-to-date evidence.

Introduction

17. The Industrial Injuries Advisory Council (IIAC) is an independent statutory body set up in 1946 to advise the Secretary of State for Work and Pensions in Great Britain and the Department for Social Development in Northern Ireland on matters relating to the Industrial Injuries Scheme ("the Scheme"). The Scheme provides no-fault compensation payments (Industrial Injuries Disablement Benefit (IIDB)) to employed earners in relation to disablement from occupational accidents or prescribed diseases.

18. For the most part, the Council's work involves reviewing and recommending changes to the list of 'prescribed' diseases recognised for award of benefit; its statutory remit also extends to advising on matters relating to the Scheme's administration.

19. In this second capacity the Council has undertaken a review of the regulation governing the circumstances under which, when claimants claim IIDB, their disease can be presumed due to the nature of their employment (sometimes called "the causation question") – a fundamental link in the decision-making chain which may lead to award or refusal of benefit.

20. This report sets out the legal background to the 'presumption' regulation (Regulation 4 of the Social Security (Industrial Injuries) (Prescribed Diseases) Regulations 1985), its rationale and its application in decision-making within the Scheme, and relates this to prescription.

21. Various theoretical and practical concerns about the Regulation have come to the Council's attention, and this report focuses on the coverage and time rules that govern presumption. As currently written, Regulation 4 potentially caters less well for the needs of claimants with a number of so-called 'long latency' diseases (those like cancer which take many years to develop), and partially in respect of them, amendments to the Regulation are proposed. However, the opportunity has also been taken to review the appropriateness of the time rule implied by Regulation 4 across the whole ambit of the diseases currently prescribed under the Scheme.

22. Other potential concerns relating to the long-standing challenge within the Scheme of compensating diseases that are not uniquely occupational and which require difficult probabilistic assessments that challenge the decision-making process, will form the basis of a later report.

Attribution to occupation

23. The Social Security Contributions and Benefits Act 1992 states that the Secretary of State may prescribe a disease where he is 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 the occupation and not as a risk common to all persons; and
    b) is such that, in the absence of special circumstances, the attribution of particular cases to the nature of the employment can be established or presumed with reasonable certainty.

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

25. For some diseases attribution to occupation can flow from specific clinical features of the individual case. For example, the proof that an individual's asthma is caused by their occupation may lie in its improvement when they are on holiday and regression when they return to work, and in the demonstration that they are allergic to a specific substance which they encounter only at work. It can be that a particular disease only occurs as a result of an occupational hazard (e.g. coal workers' pneumoconiosis) or that cases of it rarely occur outside the occupational context (e.g. mesothelioma), or that the link between exposure and illness is fairly abrupt and clear-cut (e.g. several of the chemical poisonings and infections covered by the Scheme). In these circumstances attribution to work is relatively straightforward.

26. Most diseases with the characteristics outlined in paragraph 25 tend to share in common a particular time course, having their onset within a job or within a fairly short time of leaving it. The prescription list (Social Security (Industrial Injuries) (Prescribed Diseases) Regulations 1985, Schedule 1), which defines the qualifying prescribed diseases and their associated occupational circumstances, was originally instituted in 1906 with a list of six such conditions, including poisonings by lead, mercury, phosphorous or arsenic and infection by anthrax.

27. Increasingly, however, prescription has proved possible for diseases that are not always caused by occupation and which, when caused by occupation, are indistinguishable clinically from the same disease occurring in someone who has not been exposed to a hazard at work. Examples include lung cancer, chronic obstructive pulmonary disease and osteoarthritis of the knee. Other factors at play in the population (e.g. smoking, recreational knee injury) account for a proportion of such cases and no clinical features in the individual claimant allow reliable attribution to employment.

28. In such cases, as explained in previous reports of the Council, attribution to occupation rests on a probabilistic assessment, based on robust research evidence, ideally drawn from several independent studies, that work in a prescribed job or with a prescribed occupational exposure increases the risk of developing the disease by a factor of more than two. This in turn makes it more likely than not, on the balance of probabilities, that an individual claimant fulfilling the terms defined in the prescription schedule can be presumed to have the scheduled disease because of the scheduled exposure. The Council seeks such research evidence and recommends prescription only where evidence of a causal link to a given occupational exposure is sufficiently compelling in these terms.

29. Many diseases with the characteristics outlined in paragraph 27 have a slow time course, typically with symptom onset long after leaving the work in question. They are so-called 'long latency' (late occurring) diseases.

Presumption within the Scheme

30. Regulation 4 of the Social Security (Industrial Injuries) (Prescribed Diseases) Regulations 1985 – which is reproduced in Appendix 1 (with current associated guidance for decision makers in Appendix 2) – defines the circumstances under which decision makers and their medical advisors evaluating individual claims can presume that a disease is due to occupation. The legal meaning is somewhat different from that which governs the Council's thinking on probabilities of causation, and the impact of this, insofar as it relates to rebuttal, will be followed up in a later report.

31. In its most basic form the rule holds that, when a claimant develops a disease which is prescribed in relation to them (i.e. has the scheduled disease and has done the scheduled work), that disease can be presumed to be due to the nature of their work, if developed when employed in that job or within a month of leaving it. Hereafter we refer to this as the 'standard' time rule.

32. The advantage to claimants in having such a rule on presumption is that, for qualifying cases, the burden of gathering detailed evidence to demonstrate occupational causation of disease is lifted. This helps particularly where the gathering of evidence could be slow, unequal, costly and difficult. The rule also allows the Department for Work and Pensions (DWP), in qualifying cases, to administer a national scheme in a simple, consistent and straightforward manner, in keeping with prudent and proportionate use of public funds. The policy intention is thus to simplify the task for decision makers and claimants alike and streamline the Scheme's administration.

33. In this there is a direct link with the work of the Council, which, in recommending prescription of a disease, sets out circumstances in which attribution of disease to occupation can be presumed on the balance of probabilities (compared to the civil standard of proof), such that further burdensome evidence gathering can be avoided and administrative efficiency improved.

34. Regulation 4 is therefore a fundamental feature of the Scheme. However, the rule is complex. It applies differently to certain of the prescribed diseases, involving alternative time rules, and not at all in relation to several others; and has not changed importantly for many years. On these grounds alone a case exists for review.

35. More significantly, the standard rule is restrictive in requiring that a person's disease should start in the relevant occupation or shortly thereafter. This "system of presumptions" was first proposed at a time when most diseases covered by the Scheme had an abrupt onset rather than a long latency. In these circumstances the time basis was sensible.

36. However, many prescribed diseases now covered by the Scheme develop far longer than a month after leaving the causative work, and sometimes postdate it by several years or even decades. For them, such a restricted period of presumption for IIDB claims is inappropriate.

37. Mesothelioma is a conspicuous example of the anomaly. Although attribution to work is almost certain in each claimant, this disease normally develops decades after leaving work. Such cases are managed by decision makers **as if** the benefit of presumption applies, although presumption would not lie with the claimant were Regulation 4 to be strictly interpreted, as mesothelioma falls within the standard time rule.

38. For long-latency diseases the time relations in Regulation 4 are scientifically incorrect, as occupational causation tends to become **more** probable in such late-occurring disorders rather than less so. The biology of cancer usually entails a substantial interval between exposure and the manifestations of disease. In commenting on the mismatch between this time course and that in Regulation 4, a former Council member from whom evidence was taken, Professor David Coggon, gave the following example: "*...it would be much more reasonable to attribute a nasal cancer to work in the furniture industry 20-30 years earlier than to employment in that job only in the year leading up to diagnosis of the tumour*". The Council considers it unsatisfactory that legislation would appear to transfer the burden of proof to the claimant in such circumstances.

39. A review has therefore been undertaken to explore ways in which the regulation could be usefully updated. The Council's Research Working Group considered for each prescribed disease in turn how presumption under Regulation 4 currently applies (if at all); and whether in light of current scientific knowledge this is appropriate, both in terms of coverage and of time frame of application. During inquiries, literature searches were undertaken, various statistics assembled, and detailed consultations held with experts in relevant fields and with Departmental officials.

40. For some prescribed diseases, further evidence was gathered on the original basis for prescription and on the known latency (or for infectious diseases, the incubation period) of illness. Options considered included removing presumption that was currently available, recommending presumption where it was not available, and, where appropriate, endorsing or amending the associated time rule. To facilitate a more appropriate time rule for some prescribed diseases, consideration was given to a reformulation of their original terms of prescription (as described below).

41. Table 1 summarises the number of claims received, assessments performed and awards in payment over recent times in relation to commonly claimed prescribed diseases within the Scheme. It may be seen that relatively few diseases account for most claims, assessments and awards in payment. Most attention was therefore focused on the commonly claimed diseases, although all 71 of the scheduled prescribed diseases were considered in the final review.

42. Table 2 summarises how presumption currently applies in relation to each prescribed disease; whether the Council considers the status quo appropriate; and, if not, why changes should be made and what these should be. Below we describe the key issues raised by the review and comment on those prescribed diseases where we feel a case exists to amend Regulation 4 or the existing terms of prescription.

Coverage of presumption

43. Historically, some prescribed diseases have not received the benefit of presumption, the logic being that an element of assessment, expert input, or fact-gathering, is needed case by case. Typically, this need arises because exposure to a relevant degree is difficult to establish without further inquiry; it is technically challenging to assess; or it is hard to define *a priori* without cumbersome legislation. Most 'C' diseases (those caused by chemical agents), for example, fall into this category. Previous reports by the Council (e.g. 'Conditions due to Chemical Agents' Cm. 5395, 2002) accepted the force of this argument, recommending that, where relevant, presumption should not apply and reliance should be placed instead on the individual circumstances of each claim.

44. Prescribed diseases that are not currently presumed to be occupational within the terms of Regulation 4 were individually considered by the Council's Research Working Group. It was concluded that this designation mostly remains appropriate – specifically, in relation to PD C1, C2, C4, C5A, C5B, C6, C7, C12, C13, C16, C19, C20, C21, C22b, C23 (exposures c and d), C25, C26, C27, C29, C30 and D5.

45. Two exceptions have been identified. For PD A12 (carpal tunnel syndrome) presumption does not currently apply but a case can be made for partial amendment. Originally, PD A12 was prescribed only in relation to hand-transmitted vibration (now exposure 'a' in the occupational schedule), and the decision not to accord a benefit of presumption may have reflected challenges inherent in defining the qualifying degree of exposure to vibration. In 2007, however, PD A12 was extended to include exposure to repetitive movements of the wrist (scheduled exposure 'b'), and it proved possible scientifically to define the relevant exposure circumstances closely. The Council recommends therefore that presumption should apply in respect of exposure 'b', while accepting that it remains problematic in relation to exposure 'a'.

46. Prescribed disease C22 comprises two different cancers, C22a (cancer of the nose or nasal sinuses) and C22b (lung cancer), potentially arising from the same work activity – nickel refining prior to 1950. For neither disease does presumption currently apply. However, the case that it should seems strong in relation to PD C22a. It rests on the very high relative risks (RR) of this rare cancer in exposed populations of the era, notably in workers involved in nickel refining in South Wales. These high RRs of a rare medical event make it probable that exposed cases developed their disease because of their work. Therefore, they should receive the benefit of presumption. The argument in relation to lung cancer is more finely balanced, as RRs were far less elevated. The Council recommends that PD C22a should be recognised as carrying the benefit of presumption within the meaning of Regulation 4, although no change is proposed in relation to PD C22b.

47. Arrangements for coverage in relation to PD C23 (cancers of the urinary tract) deserve comment although no amendment is proposed. Presently, presumption applies differently in relation to different causes of the disease – not at all for scheduled exposures 'c' and 'd' but with the standard time rule in relation to exposures 'a', 'b', and 'e'. This circumstance arises as differences exist in strength of evidence regarding occupational causation, magnitude of RR, and therefore ease of occupational attribution by causal agent. The Council has concluded that the coverage of presumption is appropriate here (although some changes are recommended below to exposures 'a', 'b' and 'e' regarding the standard time rule).

48. Prescribed disease A11 (Hand-arm Vibration Syndrome) currently attracts the benefit of presumption. In principle, similar difficulties exist in defining a sufficient dose of exposure to vibration as alluded to in paragraph 45 in relation to PD A12 and work with hand-held powered vibratory tools. The Council considered, therefore, whether a case existed to **remove** the benefit of presumption for PD A11. However, the exposure schedule for this prescribed disease reflects a deeper evidence base than for PD A12 in occupations established to have a high prevalence of disease – i.e. attribution to occupation is potentially simpler. Moreover, the syndrome itself is defined in the Schedule in terms of clinical features "caused by vibration". Therefore no change in coverage is proposed although comment is made below on the time rule.

Time rules for presumption

49. Presumption that a disease is due to the nature of employment should recognise the possible latency (speed of development) of the disease in question.

50. In all circumstances an occupationally-caused disease cannot have its onset before the first relevant occupational exposure has occurred. This "time rule", although obvious, is left unstated in the legislation. In practice, however, this causes little difficulty. Certain prescribed diseases are defined by the Schedule in relation to the activity or agent that caused them (PD A6, A7, A11, C3, C24a) or are specific diagnostically to occupation (PD D1, D2), and for them the link with previous exposure is unambiguous. For other prescribed diseases, decision makers have the option to rebut a claim when there is "evidence to the contrary", whether or not the disease is presumed occupational under Regulation 4; onset before occupational exposure would constitute relevant evidence. The Council has considered clarifying this aspect of exposure timing as part of the changes needed to the regulation, but sees this as an unnecessary refinement.

51. However, for those prescribed diseases which currently attract the benefit of presumption under the standard time rule but which are often delayed in symptom onset by several years, the Council recommends that a more appropriate time frame for eligibility would be "within the job or at any time thereafter". This proposal to amend the standard time rule in Regulation 4 would apply to PD A1, A2, A13, A14, B2, B6, B8b, B13, C17, C18, C22a, C23 (in respect of exposures a, b and e), C24, C31, C32, D3, D6, D8, D8a, D9, D10, D11 and D13. This list includes several cancers that attract benefit under the Scheme and also slowly developing orthopaedic disorders (e.g. osteoarthritis of hip and knee) and diseases which can remain asymptomatic for an interval or whose effects may only be recognised with delay (e.g. certain infections).

52. For diseases such as those listed in the previous paragraph, characterised by a delayed onset, the Council considered whether in modifying the standard time rule a lower limit should apply, such that onset had to be a **minimum** time after first or last exposure or after commencing or leaving the occupation or beginning or ceasing the scheduled activity.

53. In analysis of cancer studies, it is quite common to disregard instances of disease arising within the first few years (e.g. 5-10 years) after an exposure of interest, the assumption being that such early-occurring cases are unlikely to be caused by exposure. However, it is by no means simple to decide when sufficient exposure to double risks has occurred and how many of the following years should be disregarded. For many prescribed diseases the minimum degree of exposure required to substantially raise disease risks remains ill-defined scientifically (exceptions being already defined in the exposure component of the Schedule – e.g. PD A13, A14, C18, D8a, D12, D13). Moreover, spells of exposure within individual employments and in aggregate, and even the date of first exposure, may be difficult to ascertain, both for potential claimants and for the Scheme's administrators. Finally, significant biological variability in disease susceptibility and a wide spread in latent intervals between individuals will be compounded in some cases by delayed recognition of disease.

54. In general, these factors militate against applying such a minimum time limit, and the Department does not seek to do so when assessing claimants with cancer. The Council proposes no change to this pragmatic position; although the option exists for decision makers to rebut a claim where disease follows exposure by only a very brief period.

55. The Council's review has also affirmed the status quo in respect of several prescribed diseases covered by the standard time rule. These comprise: PD A4, A5, A6, A7, A8, A11, A12b, B3, B9, B10a, B10b, B11, B12, B14, B15, C3, C24a, D4, and D7. Broadly, they are acute physical strain injuries in the workplace, acute infective illnesses with a short incubation period, or sensitization reactions expected to manifest close in time to provoking occupational exposures. For such diseases the standard time rule is satisfactory (and would be also for PD A12b, if IIAC's recommendations in relation to presumption come to apply to it in respect of repetitive wrist-hand movements (paragraph 45)).

56. For PD A11, the Council has considered the view held clinically that symptoms of finger blanching may postdate employment by as much as 12 months. In theory, a cold spell of weather might be required for symptoms of vibration injury to manifest. However, despite a careful search and consultation with external stakeholders, no research evidence was found to support this clinical perception; and the frequency with which delayed onset of symptoms arises seems not to have been documented. The Council has decided not to extend the standard time rule for PD A11 on the assumption that such late onset of symptoms is an unusual event. However, it would welcome data on this question, such as from follow-up studies which trace the incidence of Hand-Arm Vibration Syndrome in workers leaving exposed occupations while still symptom-free.

57. Prescribed disease C24A also involves blanching of the digits, caused by a chemical exposure (to vinyl chloride monomer), rather than a physical insult. The Council's review has found little evidence on the pathogenesis of this disease and no evidence that would assist in redefining the time rule. It is recommended, therefore, that the prevailing standard rule should continue to apply.

58. Some prescribed diseases have a **non-standard** time rule, as listed in Table 2. Among these, the Council endorses, or finds no evidence to amend, those relating to PD A10, D1, D2 and D12. Three of these diseases already have an appropriately open-ended time rule (symptom onset within the job or at any time afterwards), while the complex evidence base behind PD A10 has been reviewed repeatedly in previous Council reports.

59. Some prescribed diseases have the capacity to present in different clinical forms of differing time course. This presents an added complexity in relation to the time rule for presumption. For these, the Council proposes that the terms of prescription be split, to enable appropriate time rules to be set. A case in point is PD A3. Certain of the effects listed within the case definition are fairly rapid in onset ("dysbarism, including decompression sickness"), but one is a complication of the longer term ("osteonecrosis"). The Council recommends that PD A3 be redefined so as to split its definition in two: the standard time rule would continue to apply to the acute effects (which could be re-labelled PD A3a), but the time course defined in paragraph 51 would be more appropriate for osteonecrosis (consequently re-labelled PD A3b). Other prescribed diseases that would benefit from similar redefinition belong to the group of 'B' diseases (occupational infections covered by prescription), which raise a number of specific issues detailed below.

The 'B' diseases

60. The potential time relation to work activity for infections is defined, to an extent, by their incubation period – the time elapsed between exposure and first clinical manifestation of disease. In principle, an onset that post-dates last employment by more than the longest plausible estimate for the incubation period cannot be occupationally-related, whereas an elapsed time that falls within the incubation period may be.

61. In practice, however, matters are more complex as published data on incubation periods vary in their availability, completeness, consistency and representativeness. Moreover, individuals vary in their susceptibility, and the incubation period is also influenced by the infective load and other factors. Additionally, for some diseases (or some manifestations of some diseases) clinical recognition may be delayed, as onset of disease is insidious and presentation is non-specific (e.g. brucellosis (PD B3)); or detection may rest on late-occurring complications (e.g. lung cysts in Hydatid disease (PD B13), anaemia caused by hookworm disease (PD B4)). Delays in recognition may be considerable, and their extent and the factors underlying them (e.g. variation by social class) will be poorly quantified and often unknown.

62. Also, for a few infectious diseases, different clinical manifestations follow different time courses. Thus, cutaneous larva migrans (one effect of PD B4) and cutaneous anthrax (one effect of PD B1) both have short incubation periods, whereas other effects of hookworm disease (PD B4) and other forms of anthrax (PD B1) manifest more slowly. However, for some diseases whose incubation periods are longer than assumed by the standard time rule (e.g. Hepatitis B (PD B8b)), a case can be made on incubation period alone for lengthening the post-work period covered by presumption.

63. In considering the issues raised in the paragraphs above, the Council compiled a table of incubation periods from various sources, Table 3, and compared it with the existing (typically standard) time rule. Evidence was also taken from several experts in communicable diseases (Appendix 3). Table 2 details the Council's final recommendations in relation to the 'B' diseases.

64. For infections with a short incubation period (PD B3, B9, B10a, B10b, B11 and B12) the existing standard time rule remains sensible, if approximate, and should be left unchanged. Frequently, uncertainty will exist as to when exposure has occurred in a job; allowing onset up to one month after leaving work would cater for instances linked with late-occurring exposures.

65. For diseases with delayed onset and very late-occurring manifestations, it is suggested that the time frame for eligibility be re-defined to allow for symptom onset "within the job or at any time thereafter" (PD B2, B6, B8b and B13).

66. For PD B1 and B4 we propose that the concerns raised in paragraph 62 be accommodated (as for PD A3) by splitting the definitions of each disease into component parts, each with its own time rule, as set out in Table 2.

67. Consideration was given to doing the same in relation to Lyme disease (PD B14), which usually presents as an acute infection but sometimes with late-occurring effects. However, evidence was received to indicate that chronic Lyme disease would be problematic to diagnose in the absence of a confirmed acute infection. Since the standard time rule already caters appropriately for acute Lyme disease, and since current rules of assessment permit late complications of a prescribed disease to be considered when evaluating disablement, the Council has concluded that for PD B14 nothing of advantage would be gained by changing the prescription and linked time rule.

68. For two other B diseases (PD B7 and B8a), modified time rules are recommended on the basis of expert evidence and a review of clinical presentations (Table 2).

69. Prescribed disease B5, tuberculosis (TB), already has a non-standard time rule, defined in 1950 in the Council's report *Tuberculosis and other Communicable Diseases in Relation to Nurses and other Health Workers* (Cm. 8093). This accords the benefit of presumption following occupational contact with a source of tuberculous infection, provided that symptoms begin at least 6 weeks into a relevant occupation and not later than 2 years after leaving it.

70. On occasion the diagnosis of TB can be considerably delayed. Also, certain manifestations of the disease are late-occurring. The Council, therefore, took evidence on the case for extending the interval after leaving work that is covered by presumption. In the event, no change to the time rule in paragraph 69 is proposed. However, inquiries have led the Council to recommend minor rewording of the original terms of PD B5 and to vary the terms of coverage of presumption, rather than the time rule. The evidence and reasoning behind this are set out below.

71. In considering the matter, the Council revisited previous Command Papers (Cm. 8093, 1950; Cm. 8393, 1981; Cm. 5997 2003[4]), undertook targeted searches of the research literature, and consulted specialists in communicable diseases and infectious disease epidemiology (Appendix 3). During inquiries, the Department posed a question about the continuing relevance of presumption to PD B5, given the rising worldwide incidence of TB, the frequency with which the disease is acquired abroad by workers immigrating to the UK and changing patterns of TB in the population at large (a factor that has previously influenced prescription). The Council, therefore, broadened its review to consider the history of this prescription, present patterns of disease, and evidence on occupational risks.

72. In 1950 prescription for PD B5 was limited to exposures incurred in healthcare and it required that a healthcare worker should have "close and frequent" contact with a source of tuberculous infection. At a time when pulmonary tuberculosis occurred in some 44,000 people annually in the UK, the intention was to recognise only those occupational circumstances that carried substantially higher risks. By 1981, when as a consequence of the discovery of effective treatment, pulmonary TB occurrences had fallen to fewer than 7,000 cases a year, the words in the prescription "close and frequent" were deemed unnecessarily restrictive, the likelihood being far greater that TB in a healthcare worker would be occupationally acquired. The Council went further and generalised the terms of prescription beyond the healthcare sector, so that currently they refer to "contact with a source of tuberculous infection" without qualification. Non-healthcare workers can also claim benefit and, of about 40 first diagnosed assessments for PD B5 during 1998-2004, 14% were outwith the health sector. More recently there has been a rise in the numbers of people in the UK reported to have TB, both pulmonary and non-pulmonary (the latter is rarely, if ever, acquired in work). Pulmonary cases have risen from 3,640 in 1987 to 4,563 in 2012 and there has been a corresponding rise in non-pulmonary TB cases, which now comprise almost half of all new reports; however, TB still remains an order of magnitude less common than in the 1950s.

4 'Tuberculosis and other communicable diseases in relation to nurses and other health workers' Cm. 8093 (1950); 'Review of the schedule and the question of individual proof' Cm. 8393 (1981); 'Conditions due to Biological Agents' Cm. 5997 (2003).

73. Against this background the Department raised the question of whether prescription (which requires attribution on the balance of probability in the individual case) can still be justified for TB and whether the present wording of PD B5 is optimal. After reviewing the evidence, the Council has concluded that it remains appropriate to recognise occupationally-related risks of TB, both in healthcare workers and other workers, although there is a case for minor change to the terms of prescription.

74. Regarding workers in healthcare (defined broadly, and encompassing staff in ancillary, supporting and technical roles), recent studies by Baussano *et al*. (2011), Menzies *et al*. (2007), and de Vries *et al*. (2006), older reports by Meredith *et al*. (1996) and Hill *et al*. (1997), a substantial number of international studies published in the 1990s and over the following decade, and a short report by Ho *et al*. (2013), all support prescription with the benefit of presumption. Risks have been identified as more than doubled relative to the general population in most reports, including a few studies that took account of workers' racial origins (e.g. Meredith *et al*. (1996)) and other studies that compared rates in settings where the background prevalence of TB in the general population ranged from low to high (e.g. Baussano *et al*. (2011)). Evidence from the UK is more limited, especially recent investigations, but reports such as those by Meredith *et al*. (1996), Hill *et al*. (1997) and Ho *et al*. (2013) tend to support prescription and presumption and the experts consulted by the Council offered no additional evidence that would call this position into question.

75. The body of evidence supporting prescription in healthcare workers has mostly originated from research undertaken in a few specific settings – hospitals, but also laboratories and mortuaries in which tuberculous specimens or infected cadavers have been handled. There is no doubt that TB can also arise occupationally in community-based healthcare workers, but in contrast few epidemiological studies have reported on levels of risk.

76. Similarly, while as noted in 'Conditions due to Biological Agents' Cm. 5997 (2002), cases of *Mycobacterium tuberculosis*-associated TB have been recognised in various occupations (e.g. workers in child care, dentistry, prison services, social work and funeral homes), published evidence on risks of TB in non-healthcare workers is considerably more limited. Two American studies from the 1990s indicated a more than doubling of risk of tuberculin reactivity among prison employees. In general, however, there is little evidence among non-healthcare workers and in community-based healthcare workers that risks of TB can be as much as doubled in defined circumstances of occupational exposure. The Council has therefore decided that, while the case for prescription in these last two groups still holds, the argument for presumption is far weaker and presumption should be withdrawn. TB is a well-recognised complication of silicosis (PD D1), but assessment of the disablement arising from PD D1 should cater for this hazard without reference to the terms of PD B5.

77. It is recommended that the occupational definition of PD B5 be split into two parts to cover (a) workers in or about a hospital, laboratory, or public mortuary (the settings in which the evidence in paragraph 74 has been assembled); and (b) other workers. The evidence in paragraph 74 points to workers in the first of these groups retaining the benefit of presumption. However, the evidential basis for the second group being accorded the benefit of presumption is far weaker and here presumption should be withdrawn.

78. Considering the time rule for workers in group (a), the Council recognises that the present wording (onset within 2 years of leaving a relevant occupation) does not cater for late-occurring diagnosis of TB. However, this is an uncommon eventuality. The alternative would be to set an open-ended time rule such as proposed in paragraph 51; but where disease develops many years after employment as a healthcare worker, it would be difficult to assure attribution to work on the balance of probabilities, especially for a disease that is more commonly acquired outside the workplace. The Council therefore proposes no change to the time rule for PD B5 as this applies to presumption.

79. Workers in group (a) as outlined in paragraph 77 should be construed to include not only workers with direct patient contact but also those providing healthcare support services in the specified settings. Risks of TB have been shown to be more than doubled, for example, in laboratory technicians handing biological specimens, staff from post-mortem rooms, ancillary staff on hospital wards, workers in emergency departments, and even hospital cleaners.

The case for change and its potential impact

80. It may be seen that there are several ways in which Regulation 4 is incompatible with the current science behind diseases recognised by the Scheme. In particular, the time rules that it defines are quite often outdated and misleading.

81. Set against this, the Department believes that the impact of the present regulation may not be so great in practice. It seems likely that most cases of long latency disease are being adjudicated in a common sense and appropriate way, as if the benefit of presumption already applied without time limit; and a limited audit by the Council of 50 case files relating to claims for prescribed diseases has found no instance in which the coverage and time rules of presumption importantly influenced the decision-making. The Council has also been assured by the Department that in most cases the decision maker will make arrangements to seek additional evidence, rather than putting an extra burden on the claimant to obtain it.

82. Presumption has featured in relatively few rulings of Judges of the Upper Tribunal (formerly known as Commissioners) on contested decisions within the Scheme. However, their written reports indicate that the presumption rule is closely read and observed, and the impact of presumption on causal decisions is not routinely recorded in a way that can be analysed outwith manual audit of individual files.

83. In the interests of fairness, transparency, and safeguarding the scientific underpinnings of the Scheme, the Council believes that Regulation 4 can now usefully be updated. No legal changes to presumption have been enacted for many decades. The proposals in this report should modernise the legal framework in which claimants, decision makers, and other stakeholders of IIDB operate and ensure its realignment with the modern caseload.

84. Of equal importance, they offer scope to strengthen further the Scheme's administrative efficiency by identifying more explicitly for decision makers, medical assessors, tribunals, and the Department those circumstances in which the balance of probabilities supports attribution, and in which further effort and resource need not be expended in evidence-gathering.

85. The Council has given consideration to other potential impacts the recommendations of this report may have on claims activity under the Scheme. Of the 71 currently scheduled diseases, 49 are presently accorded presumption under Regulation 4; 44 following the standard time rule and 5 a specified alternative. In all, these 49 "presumed" diseases represented about 92% of claims and assessments between April 2002 and December 2012 and 94% of the prevalent caseload in 2010 (the most recent available statistics) (Table 1).

86. If the proposed changes are enacted, the rules on presumption (or its absence) would not alter at all for 41 of the 71 prescribed diseases, representing 61% of new claims and 70% of total awards in payment; and would alter in only a minor way for seven more, representing 7% of claims and 6% of total awards. For 27 prescribed diseases, the changes would see an extension (23 diseases) or partial extension (4 diseases) of the interval over which presumption would apply; two prescribed diseases would be accorded presumption partially for the first time, and for one it would be partially withdrawn.

87. The impact of these changes on the numbers of awards made under the Scheme is likely to be small. In March 2010, 96% of all awards in payment related to just 12 of the prescribed diseases (those involving more than 500 cases). No change is proposed to existing rules of entitlement and assessment for eight of these diseases (PD A8, A10, A11, D1, D4, D5, D7, D12), while for three more (PD A14, D3, D9) it appears that assessments are currently managed as if presumption applied in the way the Council now recommends. The Department has advised that an effective change in policy will arise only in relation to the prescribed diseases A2, A3, B2, B6, B8A and B8B, B13, and C22a, which attracted a total of about 300 new claims during 2002-2012.

88. It is conceivable, however, that some claimants with previously rejected claims might apply again in circumstances where they could not benefit personally – for example, through misunderstandings about the nature, coverage, and relevance of proposed changes to their case (e.g. in relation to a prescribed disease for which the rules will remain unchanged or where practice already reflects the suggested update in legislative descriptors). The Department may wish to consider actions that can help mitigate the risks of increased claims activity with no benefit to claimants.

89. As a first step in support of this process, the Council has prepared a short summary (Appendix 4), identifying the prescribed diseases that would not be affected at all or would only be minimally affected by these recommendations. It has also begun work to help the Department develop plain language advice for stakeholders. Should the recommendations be accepted, it is hoped that decision makers, claimants, and particularly those advising claimants will find such advice helpful and will take note of and share it with stakeholders.

Summary of recommendations

90. Several amendments to the current Schedule of prescribed diseases are proposed:

PD	Current terms of the disease	Amended terms of the disease
A3	Dysbarism, including decompression sickness, barotrauma and osteonecrosis	(a) Dysbarism, including decompression sickness and barotrauma; or (b) osteonecrosis
B1	Anthrax	(a) Cutaneous anthrax; or (b) Pulmonary anthrax
B4	Ankylostomiasis	(a) Cutaneous larva migrans; or (b) iron deficiency anaemia caused by gastrointestinal infection by hookworm

PD	Current exposure definition	Amended exposure definition *(Any occupation involving...)*
B5	Contact with a source of tuberculous infection	(a) work in and about a hospital, laboratory, or public mortuary; or (b) work at any other workplace

91. Additionally, the Council proposes that Regulation 4 of the Social Security (Industrial Injuries) (Prescribed Diseases) Regulations 1985 be amended to ensure that presumption that a disease is due to the nature of employment be governed by the time rules laid out in Table 2 and the body of this report.

92. Appendix 5, which has been adapted from the current regulation (Appendix 1), illustrates the changes that are envisaged, although it is recognised that legal drafting may lead to clearer translation of the Council's intentions into law. Appendix 5 assumes the enabling changes to prescription in paragraph 90 and the amended numberings of PD A3, B1, B4 and B5.

93. In brief, it is suggested that Regulation 4(1), which presently lists the prescribed diseases that are not covered by the standard rule, be re-cast in two parts, to state which diseases would be covered by the standard rule (proposed Regulation 4(1)), and which would be covered by an alternative long latency time rule proposed in paragraph 51 (proposed Regulation 4(2)); also, that current Regulation 4(2) be amended to clarify the altered coverage of presumption for PD B5 and that the more exact time rules for certain B diseases be separately laid out.

Presumption vs. assessed disablement

94. It should be noted that this report bears on the time rules and coverage of presumption. It represents one of two intended reports on causation, the second of which will advise on rebuttal of causation in the process of claims adjudication. Assessment of disablement, a necessary but quite separate further step addressing "the disablement question" (the impact of the prescribed disease on function), will be the subject of a separate future report.

Diversity and equality

95. IIAC seeks to promote equality and diversity as part of its values. The Council has resolved to seek to avoid unjustified discrimination on equality grounds, including age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, gender and sexual orientation. During the course of the review of the rules for presumption no matters related to diversity and equality were apparent.

Table1: New claims, assessments and awards for prescribed diseases (ordered by awards in payment in 2010)

Prescribed Disease	March 2010		April 2002 to December 2012			
	Awards in payment		New claims		Assessments	
	N	%	N	%	N	%
ALL	65,590	(100)	277,690	(100)	103,180	(100)
Pneumoconiosis (D1)	11,880	18.1	48,680	17.6	15,040	14.6
Noise induced hearing loss (A10)	10,020	15.3	26,300	9.5	2,410	2.3
Osteoarthritis of the knee (A14)	9,810	15	45,870*	16.6	35,020*	33.9
Hand-Arm Vibration Syndrome (A11)	7,830	11.9	50,260	18.1	10,790	10.5
Chronic obstructive pulmonary disease (D12)	5,740	8.8	18,850	6.8	2,170	2.1
Asthma (D7)	4,710	7.2	6,060	2.2	1,630	1.6
Diffuse pleural thickening (D9)	4,060	6.2	17,920	6.5	4,560	4.4
Tenosynovitis (A8)	2,460	3.8	5,010	1.8	1,760	1.7
Carpal tunnel syndrome (A12)	2,180	3.3	18,980	6.8	6,260	6.1
Mesothelioma (D3)	1,960	3.0	19,190	6.9	17,590	17.0
Non-infective dermatitis (D5)	1,410	2.1	1,990	0.7	1,260	1.2
Allergic rhinitis (D4)	630	1.0	2,150	0.8	600	0.6
Tuberculosis (B5)	440	0.7	110	0.04	50	0.1
Byssinosis (D2)	390	0.6	260	0.09	20	0.02
Bursitis of the knee (A6)	340	0.5	5,870	2.1	790	0.8
Task specific focal dystonia of the hand or forearm (A4)	310	0.5	2,090	0.8	350	0.3
Primary neoplasm of the urinary tract (C23)	310	0.5	530	<0.02	250	0.2
Asbestos-related cancer in the presence of asbestosis (D8)	310	0.5	3,260	1.2	1,170	1.1
Asbestos-related cancer in the absence of asbestosis (D8A)	190	0.3	1,130	0.4	940	0.9
Extrinsic allergic alveolitis (B6)	110	0.2	190	0.07	70	0.07
Osteoarthritis of the hip (A13)	70	0.1	200	0.07	70	0.07
Dysbarism (A3)	60	0.1	20	<0.02	10	<0.02
Benzene-related acute non-lymphatic leukaemia (C7)	50	0.1	50	0.02	10	<0.02
Bursitis of the elbow (A7)	40	0.1	1,080	0.4	60	0.06
Cataracts (A2)	30	0.05	50	0.02	10	<0.02
Subcutaneous cellulitis of the hand (A5)	30	0.05	370	0.1	10	<0.02
Nasal carcinoma due to wood dust (D6)	30	0.05	60	0.02	40	0.04

Prescribed Disease	March 2010		April 2002 to December 2012			
	Awards in payment		New claims		Assessments	
	N	%	N	%	N	%
Diseases due to ionising radiation (PD A1)	20	0.03	70	0.02	10	<0.02
Diseases due to lead exposure (C1)	20	0.03	80	0.03	20	0.02
Primary carcinoma of the skin (C21)	20	0.03	40	<0.02	10	<0.02
Peripheral neuropathy due to hexane/butyl methyl ketone (C29)	20	0.03	20	<0.02	0	<0.02
Diseases due to chromic acid, chromates or dichromates (C30)	20	0.03	190	0.07	40	0.03
Leptospirosis (B3)	10	0.02	30	<0.02	10	<0.02
Brucellosis (B7)	10	0.02	0	<0.02	0	<0.02
Infections by Streptococcus suis (B9)	10	0.02	0	<0.02	0	0
Q Fever (B11)	10	0.02	20	<0.02	10	<0.02
Anaphylaxis (B15)	10	0.02	60	0.02	30	0.03
Diseases due to phosphorus exposure (C3)**	10	0.02	40	0.02	10	<0.02
Diseases due to mercury exposure (C5)	10	0.02	10	<0.02	0	0
Chronic beryllium disease (C17)	10	0.02	10	<0.02	0	<0.02
Cadmium-related emphysema (C18)	10	0.02	180	0.06	10	<0.02

Counts have been rounded to the nearest multiple of 10.

Among the remaining 30 prescribed diseases, no awards were in payment in March 2010. New claims were uncommon (<10 claims/year for any one disease) and there were very few new assessments (<10/year across all 30 of the diseases).

* Data for PD A14 are from September 2009; ** PD C3 has been listed separately in regulations as PD C3a and PD C3b since March 2012.

Table 2: Current rules on presumption and proposals for amendment

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
A. Conditions due to physical agents					
A1. Leukaemia (other than chronic lymphatic leukaemia) or cancer of the bone, female breast, testis or thyroid	Exposure to electro-magnetic radiations (other than radiant heat) or to ionising particles where the dose is sufficient to double the risk of the occurrence of the condition	Yes	No	Medium to long latency onset	In job or at any time after leaving it
A2. Cataract	Frequent or prolonged exposure to radiation from red-hot or white-hot material (for 5 or more years in aggregate)	Yes	No	Long latency onset	In job or at any time after leaving it
A3. (a) Dysbarism, including decompression sickness and barotraumas and/or (b) Osteonecrosis	Subjection to compressed or rarefied air or other respirable gases or gaseous mixtures	Yes	(a) Yes (b) No	For (b) delayed latency and delay in recognition	For (a), standard time rule. For (b), In job or at any time after leaving it
A4. Task-specific focal dystonia	Prolonged periods of handwriting, typing or other repetitive movements of the fingers, hand or arm	Yes	Yes		No change
A5. Subcutaneous cellulitis of the hand	Manual labour causing severe or prolonged friction or pressure on the hand	Yes	Yes		No change

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
A6. Bursitis or subcutaneous cellulitis arising at or about the knee due to severe or prolonged external friction or pressure at or about the knee	Manual labour causing severe or prolonged external friction or pressure at or about the knee	Yes	Yes		No change
A7. Bursitis or subcutaneous cellulitis arising at or about the elbow due to severe or prolonged external friction or pressure at or about the elbow	Manual labour causing severe or prolonged external friction or pressure at or about the elbow	Yes	Yes		No change
A8. Traumatic inflammation of the tendons of the hand or forearm, or of the associated tendon sheaths	Manual labour, or frequent or repeated movements of the hand or wrist	Yes	Yes		No change

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
A10. Sensorineural hearing loss amounting to at least 50 dB in each ear, being the average of hearing losses at 1,2 and 3 kHz frequencies, and being due in the case of at least one ear to occupational noise (occupational deafness).	The use of, or work wholly or mainly in the immediate vicinity of [*various specified machines and tools*]	Yes (if ≥10 yrs exposed and worked in job within 5 yrs of claim	Yes		No change
A11. (a) Intense blanching of the skin [defined in extent and nature]; (b) significant, demonstrable reduction in both sensory perception and manipulative dexterity with continuous numbness or continuous tingling [defined] .... where the symptoms in paragraph (a) or paragraph (b) were caused by vibration	Exposure to [*variously defined sources of hand-transmitted vibration*]	Yes	Yes		No change

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
A12. Carpal tunnel syndrome	(a) The use, at the time the symptoms first develop, of hand-held powered tools whose internal parts vibrate so as to transmit that vibration to the hand, but excluding those tools which are solely powered by hand; or (b) repeated palmar flexion and dorsiflexion of the wrist for at least 20 hours per week for a period or periods amounting in aggregate to at least 12 months in the 24 months prior to the onset of symptoms, where "repeated" means once or more often in every 30 seconds	(a) No* (b) No	(a) Yes (b) No	For (b), presumption should apply, as there are robust underlying epidemiological data on circumstances that more than double risks	For (b), the 'standard' time rule would be appropriate
A13. Osteoarthritis of the hip	Work in agriculture as a farmer or farm worker for a period of, or periods which amount in aggregate to, 10 years or more	Yes	No	Long latency onset	In job or at any time after leaving it

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
A14. Osteoarthritis of the knee	Work underground in a coal mine for a period of, or periods which amount in aggregate to, at least 10 years in any one or more of the following occupations: (a) before 1st January 1986 as a coal miner; or (b) on or after 1st January 1986 as a – (i) face worker working on a non-mechanised coal face; (ii) development worker; (iii) face-salvage worker; (iv) conveyor belt cleaner; or (v) conveyor belt attendant. Work wholly or mainly as a carpet fitter or as a carpet layer or floor layer for a period of at least 20 years in aggregate	Yes	No	Long latency onset	In job or at any time after leaving it

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
B. Conditions due to biological agents					
B1. Anthrax	(a) Contact with anthrax spores, including contact with animals infected by anthrax; or (b) handling, loading, unloading or transport of animals of a type susceptible to infection with anthrax or of the products or residues of such animals	Yes	No	Incubation period can be up to 6-8 weeks by inhalation route. [The incubation period for contact anthrax, the usual route of infection, is a few days]	Split B1 into (a) Cutaneous anthrax – no change; and (b) Non-cutaneous anthrax – in the job or within 2 months of leaving it
B2. Glanders	Contact with equine animals or their carcasses	Yes	No	Disease manifestation can be delayed months or even years	In job or any time after leaving it
B3. Infection by leptospira	(a) Work in places which are, or are liable to be, infested by rats, field mice or voles, or other small mammals; or (b) work at dog kennels or the care or handling of dogs; or (c) contact with bovine animals or their meat products or pigs or their meat products	Yes	Yes		No change

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
B4. Ankylostomiasis	Contact with a source of ankylostomiasis	Yes	No	Anaemia may not be apparent until several months (or longer) after infection	Split B4 into (a) Cutaneous larva migrans – no change; and (b) anaemia caused by hookworm disease – In job or within 12 months of leaving it
B5. Tuberculosis	Contact with a source of tuberculous infection	Yes (presumed if onset ≥6 weeks into job & not >2 years after leaving it)	No	See text (paragraphs 69 to 79)	Split B5 into (a) in workers in hospitals, laboratories, and public mortuaries; and (b) other workers. No change to presumption rule for (a); no presumption for (b)

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
B6. Extrinsic allergic alveolitis (including farmer's lung)	Exposure to moulds or fungal spores or heterologous proteins by reason of employment in:- (a) agriculture, horticulture, forestry, cultivation of edible fungi or malt-working; or (b) loading or unloading or handling in storage mouldy vegetable matter or edible fungi; or (c) caring for or handling birds; or (d) handling bagasse; or (e) work involving exposure to metal working fluid mists	Yes	No	Disease may not be apparent until years after exposure	In job or at any time after leaving it
B7. Infection by organisms of the genus brucella	Contact with:– (a) animals infected by brucella, or their carcasses or parts thereof, or their untreated products; or (b) laboratory specimens or vaccines of, or containing brucella	Yes	No	Incubation period 2-8 weeks, but can be up to 3-5 months	In job or within 6 months of leaving it
B8A. Infection by hepatitis A virus	Contact with raw sewage	Yes	No	Incubation period 14-50 days	In job or within 2 months of leaving it

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
B8B. Infection by hepatitis B or C virus	Contact with:- (a) human blood or human blood products; or (b) any other source of hepatitis B or C virus.	Yes	No	Incubation period for B virus, 30-180 days. For C virus, 24-36 weeks; up to 182 days. Delays however, in recognition. Also, hepatocellular cancer is a late rare complication, delayed by many years	In job or at any time after leaving it
B9. Infection by Streptococcus suis	Contact with pigs infected by Streptococcus suis, or with the carcasses, products or residues of pigs so infected	Yes	Yes		No change
B10. (a) Avian chlamydiosis	Contact with birds infected with Chlamydia psittaci, or with the remains or untreated products of such birds	Yes	Yes		No change
B10. (b) Ovine chlamydiosis	Contact with sheep infected with Chlamydia psittaci, or with the remains or untreated products of such sheep	Yes	Yes		No change

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
B11. Q fever	Contact with animals, their remains or their untreated products	Yes	Yes		No change
B12. Orf	Contact with sheep, goats or with the carcasses of sheep or goats	Yes	Yes		No change
B13. Hydatidosis	Contact with dogs	Yes	No	Cysts may not be clinically apparent until several months or years after infection	In job or any time after leaving it
B14. Lyme disease	Exposure to deer or other mammals of a type liable to harbour ticks harbouring Borrelia bacteria	Yes	Yes	Incubation period for acute effects 3-32 days	No change
B15. Anaphylaxis	Employment as a healthcare worker having contact with products made with natural rubber latex	Yes	Yes		No change

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
C. Conditions due to chemical agents					
C1. (a) Anaemia with a haemoglobin concentration of 9g/dL or less, and a blood film showing punctate basophilia; (b) peripheral neuropathy; (c) central nervous system toxicity	The use or handling of, or exposure to the fumes, dust or vapour of, lead or a compound of lead, or a substance containing lead	No*	Yes		No change
C2. Central nervous system toxicity characterised by parkinsonism	The use or handling of, or exposure to the fumes, dust or vapour of, manganese or a compound of manganese, or a substance containing manganese	No*	Yes		No change
C3. (a) Phossy jaw (b) Peripheral polyneuropathy or peripheral polyneuropathy with pyramidal involvement of the central nervous system, caused by organic compounds of phosphorus which inhibit the enzyme neuropathy target esterase	The use or handling of, or exposure to the fumes, dust or vapour of, phosphorus or a compound of phosphorus, or a substance containing phosphorus	Yes	Yes		No change

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
C4. Primary carcinoma of the bronchus or lung	Exposure to the fumes, dust or vapour of, arsenic, a compound of arsenic, or a substance containing arsenic	No*	Yes		No change
C5A. Central nervous system toxicity characterised by tremor and neuropsychiatric disease	Exposure to mercury or inorganic compounds of mercury for a period of, or periods which amount in aggregate to, 10 years or more	No*	Yes		No change
C5B. Central nervous system toxicity characterised by combined cerebellar and cortical degeneration	Exposure to methylmercury	No*	Yes		No change
C6. Peripheral neuropathy	The use or handling of, or exposure to, carbon bisulphide (also called carbon disulfide)	No*	Yes		No change
C7. Acute non-lymphatic leukaemia	Exposure to benzene	No*	Yes		No change
C12. (a) Peripheral neuropathy; (b) Central nervous system toxicity	Exposure to methyl bromide (also called bromomethane)	No*	Yes		No change
C13. Cirrhosis of the liver	Exposure to chlorinated napthalenes	No*	Yes		No change
C16. (a) Neurotoxicity; (b) Cardiotoxicity	Exposure to the dust of gonioma kamassi	No*	Yes		No change

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
C17. Chronic beryllium disease	Inhalation of beryllium or a beryllium compound	Yes	No	Long latency onset	In job or at any time after leaving it
C18. Emphysema	Inhalation of cadmium fumes for a period of, or periods which amount in aggregate to, 20 years or more	Yes	No	Long latency onset	In job or at any time after leaving it
C19. (a) Peripheral neuropathy; (b) Central nervous system toxicity	Exposure to acrylamide	No*	Yes		No change
C20. Dystrophy of the cornea	Exposure to quinone or hydroquinone	No*	Yes		No change
C21. Primary carcinoma of the skin	Exposure to arsenic or arsenic compounds, tar, pitch, bitumen, mineral oil (including paraffin) or soot	No*	Yes		No change
C22. (a) Primary carcinoma of the mucous membrane of the nose or paranasal sinuses; (b) Primary carcinoma of the bronchus or lung	Work before 1950 in the refining of nickel involving exposure to oxides, sulphides or water-soluble compounds of nickel	No	C22 (a) No C22 (b) Yes	See text, paragraph 46 – for C22a the probability of causation is high	For (a), in job or at any time after leaving it; for (b) presumption will still not apply.

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
C23. Primary neoplasm of the epithelial lining of the urinary tract	(a) The manufacture of 1-naphthylamine, 2-naphthylamine, benzidine, auramine, magenta or 4-aminobiphenyl (also called biphenyl-4-ylamine); (b) work in the process of manufacturing methylene-bisorthochloroaniline (also called MbOCA) for a period of, or periods which amount in aggregate to, 12 months or more; (c) exposure to 2-naphthylamine, benzidine, 4-aminobiphenyl (also called biphenyl-4-ylamine) or salts of those compounds otherwise than in the manufacture of those compounds; (d) exposure to orthotoluidine, 4-chloro-2-methylaniline or salts of those compounds; or (e) exposure for a period of, or periods which amount in aggregate to, 5 years or more, to coal tar pitch volatiles produced in aluminium smelting involving the Soderberg process (that is to say, the method of producing aluminium by electrolysis in which the anode consists of a paste of petroleum coke and mineral oil which is baked in situ)	Yes (a, b, e) No* (c, d)	No (a,b,e)	Long latency	For a, b, e, In job or at any time after leaving it. For c & d presumption will still not apply.

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
C24. (a) Angiosarcoma of the liver; or (b) osteolysis of the terminal phalanges of the fingers; or (c) sclerodermatous thickening of the skin of the hand; or (d) liver fibrosis, due to exposure to vinyl chloride monomer	Exposure to vinyl chloride monomer in the manufacture of polyvinyl chloride	Yes	No	Long latency	In job or at any time after leaving it
C24A. Raynaud's phenomenon due to exposure to vinyl chloride monomer	Exposure to vinyl chloride monomer in the manufacture of polyvinyl chloride before 1st January 1984.	Yes	Yes		No change
C25. Vitiligo	The use or handling of, or exposure to paratertiary-butylphenol (also called 4-tert-butylphenol), paratertiarybutylcatechol (also called 4-tertbutylcatechol), para-amylphenol (also called p-pentyl phenol isomers), hydroquinone, monobenzyl ether of hydroquinone (also called 4-benzyloxyphenol) or mono-butyl ether of hydroquinone (also called 4-butoxyphenol)	No*	Yes		No change

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
C26. (a) Liver toxicity; (b) kidney toxicity	The use or handling of, or exposure to, carbon tetrachloride (also called tetrachloromethane)	No*	Yes		No change
C27. Liver toxicity	The use or handling of, or exposure to, trichloromethane (also called chloroform)	No*	Yes		No change
C29. Peripheral neuropathy	The use or handling of, or exposure to, n-hexane or n-butyl methyl ketone	No*	Yes		No change
C30 (a) Dermatitis; (b) ulceration of the mucous membrane or the epidermis	The use or handling of, or exposure to, chromic acid, chromates or dichromates	No*	Yes		No change
C31 Bronchiolitis	Any occupation involving: The use or handling of, or exposure to, diacetyl (also called butanedione or 2,3butanedione) in the manufacture of – (a) diacetyl; or (b) food flavouring containing diacetyl; or (c) food to which food flavouring containing diacetyl is added	Yes	No	Latency can be prolonged	In job or at any time after leaving it

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
C32 Nasal carcinoma	(a) The manufacture of inorganic chromates or (b) work in hexavalent chrome plating	Yes	No	Latency can be prolonged	In job or at any time after leaving it
D. Miscellaneous conditions					
D1. Pneumoconiosis	Various defined exposures during the course of mining, quarrying , sand blasting, breaking, crushing/grinding of flint, certain foundry operations, grinding of mineral graphite, dressing of granite, manufacture of china or earthenware, use of a grindstone, manufacture or repair of asbestos textiles, the sawing, splitting or dressing of slate, boiler scaling etc	Yes (presumed if >2 years worked in aggregate – no time limit)	Yes		No change
D2. Byssinosis	Work in any room where any process up to and including the weaving process is performed in a factory in which the spinning or manipulation of raw or waste cotton or of flax, or the weaving of cotton or flax, is carried on	Yes (presumed with no time limit – i.e. in job or any time after)	Yes		No change
D3. Diffuse mesothelioma (primary neoplasm of the mesothelium of the pleura or of the pericardium or of the peritoneum)	Exposure to asbestos, asbestos dust or any admixture of asbestos at a level above that commonly found in the environment at large.	Yes	No	Long latency onset	In job or any time after leaving it

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
D4. Allergic rhinitis which is due to exposure to any of [a specified list of sensitizing] agents	Exposure to any of the agents set out in column 1 of this paragraph	Yes	Yes		No change
D5. Non-infective dermatitis of external origin (excluding dermatitis due to ionising particles or electro-magnetic radiations other than radiant heat)	Exposure to dust, liquid or vapour or any other external agent except chromic acid, chromates or bichromates, capable of irritating the skin (including friction or heat but excluding ionising particles or electro-magnetic radiations other than radiant heat)	No*	Yes		No change
D6. Carcinoma of the nasal cavity or associated air sinuses (nasal carcinoma)	(a) Attendance for work in or about a building where wooden goods are manufactured or repaired; or (b) attendance for work in a building used for the manufacture of footwear or components of footwear made wholly or partly of leather or fibre board; or (c) attendance for work at a place used wholly or mainly for the repair of footwear made wholly or partly of leather or fibre board	Yes	No	Long latency onset	In job or any time after leaving it

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
D7. Asthma which is due to exposure to any of [*a specified list of sensitizing agents*] or (x) any other sensitising agent. (occupational asthma)	Exposure to any of the agents set out in column 1 of this paragraph.	Yes	Yes		No change
D8. Primary carcinoma of the lung where there is accompanying evidence of asbestosis	(a) The working or handling of asbestos or any admixture of asbestos; or (b) the manufacture or repair of asbestos textiles or other articles containing or composed of asbestos; or (c) the cleaning of any machinery or plant used in any of the foregoing operations and of any chambers, fixtures and appliances for the collection of asbestos dust; or (d) substantial exposure to the dust arising from any of the foregoing operations	Yes	No	Long latency onset	In job or any time after leaving it

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
D8A. Primary carcinoma of the lung	Exposure to asbestos in the course of:- (a) the manufacture of asbestos textiles; or (b) spraying asbestos; or (c) asbestos insulation work; or (d) applying or removing materials containing asbestos in the course of shipbuilding, where all or any of the exposure occurs before 1st January 1975, for a period of, or periods which amount in aggregate to, five years or more, or otherwise, for a period of, or periods which amount in aggregate to, ten years or more	Yes	No	Long latency onset	In job or any time after leaving it

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
D9. Unilateral or bilateral diffuse pleural thickening with obliteration of the costophrenic angle	(a) The working or handling of asbestos or any admixture of asbestos; or (b) the manufacture or repair of asbestos textiles or other articles containing or composed of asbestos; or (c) the cleaning of any machinery or plant used in operations and of any chambers, fixtures and appliances for the collection of asbestos dust; or (d) substantial exposure to the dust arising from any of the foregoing operations.	Yes	No	Long latency onset	In job or any time after leaving it

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
D10. Primary carcinoma of the lung	(a) Work underground in a tin mine; or (b) exposure to bis(chloromethyl) ether produced during the manufacture of chloromethyl methyl ether; or (c) exposure to zinc chromate calcium chromate or strontium chromate in their pure forms (d) employment wholly or mainly as a coke oven worker i) for a period of, or periods which amount in aggregate to, 15 years or more; or ii) in top oven work for a period of, or periods which amount in aggregate to, 5 years or more; or iii) in a combination of top oven work and other coke oven work for a total aggregate period of 15 years or more where one year working in top oven work is treated as equivalent to 3 years in other coke oven work.	Yes	No	Long latency onset	In job or any time after leaving it

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
D11. Primary carcinoma of the lung where there is accompanying evidence of silicosis	Exposure to silica dust in the course of:- (a) the manufacture of glass or pottery; (b) tunnelling in or quarrying sandstone or granite; (c) mining metal ores; (d) slate quarrying or the manufacture of artefacts from slate; (e) mining clay; (f) using siliceous materials as abrasives; (g) cutting stone; (h) stonemasonry; or (i) work in a foundry	Yes	No	Long latency onset	In job or any time after leaving it

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
D12. Except in the circumstances specified in regulation 2 (d) (a) chronic bronchitis; (b) emphysema; or (c) both, where there is evidence of a forced expiratory volume in one second (measured from the position of maximum effort) which is- (i) at least one litre below the appropriate mean value predicted, obtained from the following prediction formulae which give the mean values predicted in litres – For a man, where the measurement is made without back-extrapolation, (3.62 x Height in metres) – (0.031 x Age in years) – 1.41; or, where the measurement is made with back-extrapolation, (3.71 x Height in metres) – (0.032 x Age in years) – 1.44;	Exposure to coal dust (whether before or after 5th July 1948) by reason of working – (a) underground in a coal mine for a period or periods amounting in aggregate to at least 20 years; (b) on the surface of a coal mine as a screen worker for a period or periods amounting in aggregate to at least 40 years before 1st January 1983; or (c) both underground in a coal mine, and on the surface as a screen worker before 1st January 1983, where 2 years working as a surface screen worker is equivalent to 1 year working underground, amounting in aggregate to at least the equivalent of 20 years underground. Any such period or periods shall include a period or periods of incapacity while engaged in such an occupation.	Yes (presumed with no time limit specified – i.e. in job or any time after), provided that exposure duration met	Yes		No change

Prescribed disease	Any occupation involving:	Currently presumed? (Time rule if not standard)	Current rule suitable?	If not, why not	Alternative time rule
D12. Continued For a woman, where the measurement is made without back-extrapolation, (3.29 x Height in metres) – (0.029 x Age in years) – 1.42; or, where the measurement is made with back-extrapolation, (3.37 x Height in metres) – (0.030 x Age in years) – 1.46; or (ii) less than one litre.					
D13. Primary carcinoma of the nasopharynx	Exposure to wood dust in the course of the processing of wood or the manufacture or repair of wood products, for a period or periods which amount in aggregate to at least 10 years	Yes	No	Long latency onset	In job or any time after leaving it

* These prescribed diseases are not covered by presumption and the Council proposes that this should not change

Table 3: Incubation periods for certain prescribed 'B' diseases

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	Comment
B1. Anthrax	2-10d, max 21d (43d "doubtful")	1-10d, max 42d				<1d -"up to 2 months" [inhalation][a]	2d by inhalation, 1-7 days if cutaneous; can be 1 day to 8 weeks	Depends on route and form – inhalation can be longer
B2. Glanders	1-2d to "many months"					1-5 d (sepsis, local infection, 10-14d (pulmonary), "to several weeks"[b]	Usually 10-14 days. Can be extremely variable – up to many years	Several other websites quote up to 14d; one says "highly variable, usually from 1 -14 days. Manifestation of disease can be delayed for up to 10 years."[c]
B3. Infection by leptospira	5-14d (mean 10d)					2-21d[d]	Usually 7-21 days; rarely as little as 2 days or as long as 30 days	

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	Comment
B4. Ankylostomiasis		40-400d			42-56d [for eggs to be excreted; symptoms may be longer]	Median to symptoms of CLM, 10-15d[e]; "CLM. short but vaguely established ... ~ 7-14d. For classic hookworm disease varies ... and can be a few weeks to many months"[f]		CLM is a self-limiting but unpleasant skin irritation (apparent well within the 1 month time rule). The main pathology though comes from GI infection and chronic insidious blood loss. One site says: "Following infection, the pre–patent period for... A. duodenale is unpredictable, ranging from 5 weeks to 9 months. (This is because the invading larvae of A *duodenale* is capable of remaining arrested or dormant in the tissues of the host for as long as nine months, and then again resume development and migrate.) Another says 40-100d.
B6. Extrinsic allergic alveolitis						"The effects may occur after a few days of contact, or they may take years to develop" (British Lung Foundation)		Chronic and subacute cases "often lack a history of acute episodes." Only the acute phase (3-6d) is well covered by the 1 month rule.
B7. Infection by organisms of the genus brucella	14-28d	5-60d (could be several months)				14-28d (range 5d – 5 months)[g]	Typically 5-30 days, but can be up to 6 months	Other sites say "generally 1-2 months"; "1-8 weeks" (variable); "5d to 3 months"

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	Comment
B8A. Infection by hepatitis A virus	11-50d (mean 28d)	14-42d				15-50d (mean 28d)[h]	Average 28 days, range 15 to 50 days	Other sites say "15-45 d (mean 28d)"; 14-42d (mean 28d)"
B8B. Infection by hepatitis B or C virus	B = 1-4 mths (~30-120d) C= 14-120d (mean 50d)	B = 2-6 mths (~60-182d) C= 14-182 d (mean 56d)					B – average 40-160 days	
B9. Infection by Streptococcus suis						<1d to 14d (median 2d)[i]; 0-11d (median 2d)		Outbreak reports from Far East
B10. (a) Avian chlamydiosis	5-15d		4-14d	7-15d	5-19d, max 28			
B10. (b) Ovine chlamydiosis	5-15d		4-14d	7-15d	5-19d, max 28			
B11. Q fever	2-14d	14-35d				Typically 14-21 wks (CDC)	Usually 7-21 days (range 2 to 40 days)	
B12. Orf	3-5d					"About a week"[k]; 5-6d[l]		

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	Comment
B13. Hydatidosis						"...often prolonged for several years and most cases ... remain asymptomatic until the cysts reach a large enough size to cause dysfunction"[m]; "months, yrs or even decades"[n]	Many years to produce symptoms	Onset very insidious (slow growing cysts)
B14. Lyme disease	3-32d	3-32d		3-30d				These incubation periods reflect acute Lyme disease; chronic manifestations can occur, over many years

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[6] Various website entries:

a. CDC – http://emergency.cdc.gov/agent/anthrax/anthrax-hcp-factsheet.asp

b. Center for Food Security & Public Health, IOWA University – http://www.cfsph.iastate.edu/Factsheets/pdfs/glanders.pdf

c. Ministry of Health and Long-term Care, Ontario – http://www.health.gov.on.ca/english/providers/pub/disease/glanders.html

d. CDC – http://wwwnc.cdc.gov/travel/yellowbook/2012/chapter-3-infectious-diseases-related-to-travel/leptospirosis.htm

e. CDC – http://www.cdc.gov/parasites/zoonotichookworm/health_professionals/index.html

f. Center for Food Security & Public Health, IOWA University – http://www.cfsph.iastate.edu/Factsheets/pdfs/hookworms.pdf

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l. Patient.co.uk – http://www.patient.co.uk/doctor/Viral-Skin-Infections.htm

m. CDC – http://www.cdc.gov/parasites/echinococcosis/health_professionals/index.html

n. Kemp C, Roberts A. Infectious Diseases: Echinococcosis (Hydatid Disease). Wiley InterScience Logo J Am Acad Nurse Pract 13.8 (2001): 346-47.

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Appendix 1: Social Security (Industrial Injuries) (Prescribed Diseases) Regulations – SI 1985/967

Presumption that a disease is due to the nature of employment

4. (1) Where a person has developed a disease which is prescribed in relation to him in Part I of Schedule 1 hereto, other than the diseases numbered A10, A12, B5, C1, C2, C4, C5A, C5B, C6, C7, C12, C13, C16, C19, C20, C21, C22, C23, C25, C26, C27, C29, C30, D1, D2, D5 and D12 in that Schedule, that disease shall, unless the contrary is proved, be presumed to be due to the nature of his employed earner's employment if that employment was in any occupation set against that disease in the second column of the said Part and he was so employed on, or at any time within one month immediately preceding, the date on which, under the subsequent provisions of these regulations, he is treated as having developed the disease.

(2) Where a person in relation to whom tuberculosis is prescribed in paragraph B5 of Part I of Schedule 1 hereto develops that disease, the disease shall, unless the contrary is proved, be presumed to be due to the nature of his employed earner's employment if the date on which, under the subsequent provisions of these regulations, he is treated as having developed the disease is not less than 6 weeks after the date on which he was first employed in any occupation set against the disease in the second column of the said Part and not more than 2 years after the date on which he was last so employed in employed earner's employment.

(3) Where a person in relation to whom pneumoconiosis is prescribed in regulation 2(b)(i) develops pneumoconiosis, the disease shall, unless the contrary is proved, be presumed to be due to the nature of his employed earner's employment if he has been employed in one or other of the occupations set out in Part II of the said Schedule 1 for a period or periods amounting in the aggregate to not less than 2 years in employment which either–

(a) was employed earner's employment; or

(b) would have been employed earner's employment if it had taken place on or after 5th July 1948.

(4) Where a person in relation to whom byssinosis is prescribed in paragraph D2 of Part I of Schedule 1 hereto develops byssinosis, the disease shall, unless the contrary is proved, be presumed to be due to the nature of his employed earner's employment.

(5) Where a person in relation to whom occupational deafness is prescribed in regulation 2(c) develops occupational deafness the disease shall, unless the contrary is proved, be presumed to be due to the nature of his employed earner's employment.

(6) Where a person in relation to whom chronic bronchitis or emphysema is prescribed in paragraph D12 of Schedule 1 develops chronic bronchitis or emphysema, the disease shall, unless the contrary is proved, be presumed to be due to the nature of his employed earner's employment.

(7) Where a person in relation to whom primary neoplasm of the epithelial lining of the urinary tract is prescribed in paragraph C23 of Part I of Schedule 1 in respect of the occupation set out in sub-paragraph (a), (b) or (e) in the second column of the entry relating to the disease numbered C23, develops that disease, it shall, unless the contrary is proved, be presumed to be due to the nature of his employed earner's employment if he was employed in one of those occupations on, or at any time within one month immediately preceding, the date on which, under the subsequent provisions of these Regulations, he is treated as having developed the disease.

Appendix 2: Decision Makers' Guidance on Presumption

67191 Most PDs are **presumed** to be due to the nature of a person's employment. The presumption does not apply to PDs A12, C1, C2, C4, C5A, C5B, C6, C7, C12, C13, C16, C19, C20, C21, C22, C25, C26, C27, C29, C30 and D5. The presumption applies in different ways to PDs A10, B5, C23, D1, D2, and D121 (see DMG 67305).

1 SS (II) (PD) Regs, reg 4

67192 The presumption applies when a person who has contracted a PD

1. was employed in a prescribed occupation **and**

2. was so employed on, or at any time within one month immediately preceding, the date of onset of the disease.

67193 A presumption in the claimant's favour continues to apply unless the DM is able to rebut it, that is, to show that the disease was not due to the nature of the employment. To do this the DM must have proof sufficient to establish the point on the balance of probabilities. That is, the DM must be satisfied that, taking into account all the relevant evidence, it is more probable that the disease was not due to the nature of the employed earner's employment than that it was1.

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67194 If the presumption does not apply, the onus is on the claimant to establish on a balance of probabilities, that the disease was due to the nature of the employed earner's employment. This would be the case, for example, where the claim was for PD A8 and the employed earner was not in employed earner's employment in the prescribed occupation on, or within one month immediately preceding, the date of onset.

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Appendix 3: Experts consulted

Professor David Coggon, Professor of Occupational and Environmental Medicine, MRC Lifecourse Epidemiology Unit, University of Southampton

Professor Sir Anthony Newman Taylor, Professor of Occupational and Environmental Medicine, Imperial College, London

Professor Sarah O'Brien, Professor of Infectious Diseases, University of Liverpool

Professor Stephen Palmer, Professor of Infectious Diseases, Institute of Primary Care & Public Health, Cardiff University School of Medicine

Professor John Watson, Deputy Chief Medical Officer for England, Department of Health (formerly the Head of the Respiratory Diseases Department, Public Health England)

Dr Onn Min Kon, Reader in Respiratory Medicine, National Heart and Lung Institute, Lead Physician for the TB service at Imperial College, London and North West London TB sector

Professor Dr Ibrahim Abubakar, Professor in Infectious Diseases Epidemiology, Institute of Epidemiology and Health, University College London, London

Appendix 4: Impact of recommendations made in this report

The recommendations made in this report are subject to Ministerial approval. However, if accepted and implemented by the Department for Work and Pensions in their entirety, the potential impact for claimants is summarised below.

Prescribed diseases where no change is proposed

No changes are proposed to the presumption rule for the following diseases:

A4, A5, A6, A7, A8, A10, A11, B3, B9, B10a, B10b, B11, B12, B14, B15, C1, C2, C3, C4, C5A, C5B, C6, C7, C12, C13, C16, C19, C20, C21, C22b, C23c, C23d, C24a, C25, C26, C27, C29, C30, D1, D2, D4, D5, D7, D12.

In the event of a previously rejected claim, there will be no benefit in making a further application.

Prescribed diseases where a change is proposed

1. For the following diseases the time rule for presumption has been extended to 'in job or any time after leaving it':

   A1, A13, A14, C17, C18, C23a, C23b, C23e, C24, C31, C32, D3, D6, D8, D8a, D9, D10, D11, D13.

The Department has advised, however, that in the event of a previously rejected claim, there should be no benefit in making a further application, as the Scheme has always sought to apply this time course in assessing claims relating to these diseases.

2. The time rule for presumption has changed in different ways for each of the following diseases (see Table 2 for the specific changes):

   A12, B1, B4, B5, B7

The Department has advised, however, that in the event of a previously rejected claim, there should be no benefit in making a further application, as the Scheme has always sought to apply the time rules proposed in assessing claims for these diseases.

3. The following additional diseases are affected by the changes recommended in this report:

   A2, A3, B2, B6, B8, B13, C22a

The Department has advised that, in the event of a previously rejected claim, there may be a benefit in re-applying for one of these diseases, but **only** if the original claim was turned down for a reason related to **the specific change** set out in Table 2.

Appendix 5: Illustrative proposal for amendment of Regulation 4 of the Social Security (Industrial Injuries) (Prescribed Diseases) Regulations – SI 1985/967

4 Presumption that a disease is due to the nature of employment

(1) Where a person has developed a disease which is prescribed in relation to him in Part I of Schedule 1 numbered A3a, A4, A5, A6, A7, A8, A11, A12b, B1a, B3, B4a, B9, B10, B11, B12, B14, B15, C24a, D4 and D7, that disease shall, unless the contrary is proved, be presumed to be due to the nature of his employed earner's employment if —

(a) that employment was in any occupation set against that disease in the second column of that Part, and

(b) he was so employed on, or at any time within one month immediately preceding, the date on which, under these regulations, he is treated as having developed the disease.

(2) Where a person has developed a disease which is prescribed in relation to him in Part I of Schedule 1 numbered A1, A2, A3b, A13, A14, B2, B6, B8b, B13, C17, C18, C22a, C23 (a, b and e), C24, C31, C32, D2, D3, D6, D8, D9, D10, D11, D12 and D13, that disease shall, unless the contrary is proved, be presumed to be due to the nature of his employed earner's employment if that employment was in any occupation set against that disease in the second column of that Part.

(3) Where a person employed at a hospital, laboratory, or public mortuary and in relation to whom tuberculosis is prescribed in paragraph B5 of Part I of Schedule 1 develops that disease, that disease shall, unless the contrary is proved, be presumed to be due to the nature of his employed earner's employment if —

(a) the date on which, under these regulations, he is treated as having developed the disease is not less than six weeks after the date on which he was first employed in any occupation set against the disease in the second column of that Part, and

(b) not more than two years after the date on which he was last so employed in employed earner's employment.

(4) Where a person in relation to whom pneumoconiosis is prescribed in regulation 2(b)(i) develops pneumoconiosis, the disease shall, unless the contrary is proved, be presumed to be due to the nature of his employed earner's employment if he has been employed in one or other of the occupations set out in Part II of the said Schedule 1 for a period or periods amounting in the aggregate to not less than 2 years in employment which either —

(a) was employed earner's employment; or

(b) would have been employed earner's employment if it had taken place on or after 5th July 1948.

(5) Where a person in relation to whom occupational deafness is prescribed in regulation 2(c) develops occupational deafness the disease shall, unless the contrary is proved, be presumed to be due to the nature of his employed earner's employment.

(6) Where a person has developed a disease which is prescribed in relation to him in Part I of Schedule 1 numbered B1b, B4b, B7 and B8a, that disease shall, unless the contrary is proved, be presumed to be due to the nature of his employed earner's employment if —

(a) that employment was in any occupation set against that disease in the second column of the said Part, and

(b) he was so employed on, or at any time within —

(i) in the case of B1b or B8a, two months,

(ii) in the case of B7, six months, or

(iii) in the case of B4b, twelve months

immediately preceding the date on which, under subsequent provisions of these regulations, he is treated as having developed the disease.

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Glossary of terms used in this report

Relative Risk (RR)	A measure of the strength of association between exposure and disease. RR is the ratio of the risk of disease in one group to that in another. Often the first group is exposed and the second unexposed or less exposed. *A value greater than 1.0 indicates a positive association between exposure and disease*. (This may be causal, or have other explanations, such as bias, chance or confounding.)
Incubation period (of an infectious disease)	The time elapsed between exposure to a pathogenic organism and when symptoms and signs are first apparent in the host.
Latent interval	The interval between exposure to a carcinogen (or an infectious organism) and the clinical appearance of disease.

Definition of the diseases presently covered by prescription is beyond the scope of this glossary, but further information can be found in previous Council reports.

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