



**The Industrial Injuries
Advisory Council**

**Proceedings of the
17th Public Meeting**

Held on 25 November 2021
Online

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Foreword

The seventeenth public meeting of the Industrial Injuries Advisory Council (IIAC) was held on 25 November 2021 having been postponed from 2020 due to the coronavirus pandemic. For the first time in the history of IIAC and again because of the pandemic, the meeting was held online. This resulted in a larger number of people being able to attend than previously. There have been some changes in the composition of the Council since the previous public meeting in 2019 due to some members reaching the end of their terms of office or leaving because of changes of jobs. Several new members have joined the Council with expertise including respiratory disease, legal aspects of occupation ill-health and epidemiology.

The online format allowed interested members of the public to see the Chair and Council members, and to listen to presentations on the topics that have been of concern to the Council over the past two years. One major issue that has been monitored by the Council throughout this time has been the continually emerging evidence on the adverse health effects of COVID-19 and the association with occupation. The Council have also begun addressing substantial re-evaluations of two important prescriptions with the aim of updating these scientifically and making them more straightforward for both claimants and for administrators. This year, as in previous years, the discussions raised some important issues and provided helpful and interesting views on the topics presented. Additionally, new and relevant concerns were raised, which the Council and the Department for Work and Pensions (DWP) will consider going forward. I would like to thank everyone who attended the meeting for contributing to a useful and productive occasion. In future we plan to use a hybrid format for IIAC's public meetings which includes both face-to-face and online options.

Dr Lesley Rushton IIAC Chair

IIAC is a non-departmental public body which advises the Secretary of State for the Department for Work and Pensions (DWP) and the Department for Social Development (DSD) in Northern Ireland on the Industrial Injuries Scheme. The DWP and DSD are responsible for the policy and administration of the Scheme. IIAC is independent of the DWP and the DSD. It is supported by a secretariat provided by the DWP and endeavours to work co-operatively with Departmental officials in provision of its advice.

This document is a record of the online public meeting and covers events and discussions up to 25 November 2021. However, this report should not be taken as guidance on current legislation, nor current policy within the DWP nor DSD, as members may have expressed personal views, which have been recorded here for information.

Agenda

**Public Meeting
Thursday 25th November 2021
14:00 – 16:30**

Online MS Teams Event

Agenda

14:00 – 14:30	Welcome remarks Chair of IIAC – Dr Lesley Rushton How IIAC provides evidence on health risks associated with occupational exposures for the purposes of prescription for Industrial Injuries Disablement Benefit & a brief overview of IIAC’s work in the past year – with Q&A Chair of IIAC – Dr Lesley Rushton
14:30 – 15:05	COVID-19 and occupational exposure – with Q&A Dr Jennifer Hoyle & Prof John Cherrie
15:05 – 15:15	Tea / coffee break
15:15 – 15:40	Reviewing occupational exposures for PD A11 (HAVS) – with Q&A Dr Ian Lawson
15:40 – 16:05	IIAC’s proposed revision of PD D1 – Pneumoconiosis / silicosis – with Q&A Dr Chris Stenton
16:05 – 16:30	Open Forum and closing remarks
16:30	End of public meeting

Welcoming remarks

Dr Lesley Rushton Chair of IIAC

1. Dr Rushton welcomed everyone to the online public meeting and gave an overview of the forthcoming talks. Attendees were asked to remain on mute and to ensure their video was turned off.
2. The Chair then gave an opening presentation which covered the industrial injuries scheme.
3. The Industrial Injuries Scheme provides non-contributory, no-fault compensation, which principally includes Industrial Injuries Disablement Benefit (IIDB). This is paid to people who become ill as a consequence of a workplace accident or an occupational accident or one of 70 + prescribed diseases known to be a risk from certain jobs.
4. The Scheme compensates employed earners; the self-employed are ineligible to claim IIDB for work-related ill-health or injury.
5. Certain prescribed diseases are given the benefit of 'presumption' – if a claimant is diagnosed with a disease and had an appropriate exposure then it is presumed that their occupation has caused the disease. This spares claimants the burden of gathering detailed evidence to demonstrate causation.
6. The Scheme compensates for "loss of faculty" (mental or physical) and its resultant "disablement". Disablement is decided by comparison to the condition of an age- and gender-matched healthy person and assessed by healthcare advisers engaged by the Department. Assessments of disablement are based on loss of function, rather than loss of earnings and are expressed as a percentage.
7. Thresholds for payment are applied such that, in general, payments can be made if disablement is equal to, or greater than, 14%. Assessments of disablement can be aggregated (this is the process whereby two or more concurrent assessments are added together to produce one award of benefit).
8. Claimants can receive benefit from 90 days after the accident or onset of the prescribed disease; shorter periods of disablement are not compensated. IIDB can be paid 15 weeks following an industrial accident and prescribed diseases cannot be paid more than 3 months before date of claim.
9. IIAC is supported by a small secretariat which is provided by DWP.

10. IIAC is a statutory body, established under the National Insurance (Industrial Injuries) Act 1946, to provide independent scientific advice to the Secretary of State for the Department for Work and Pensions (DWP) and the Department for Social Development (DSD) in Northern Ireland on matters relating to the IIDB Scheme or its administration. IIAC is a non-departmental government body and is independent of DWP.
11. The members of IIAC are appointed by the Secretary of State after open competition and consist of a Chair, scientific and legal experts and an equal number of representatives of employers and employees. There are four meetings of the full Council per year and its sub-group, the research working group (RWG) also meets 4 times per year, which provides a steer to the main council on scientific matters.

IIAC current members

Lesley Rushton	Chair
Raymond Agius	Member
Kim Burton	Member
John Cherrie	Member
Keith Corkan	Member
Lesley Francois	Member
Max Henderson	Member
Jennifer Hoyle	Member
Chris Stenton	Member
Ian Lawson	Employer representative
Andrew White	Employer representative
Karen Mitchell	Employed earner representative
Doug Russell	Employed earner representative

Dan Shears	Employed earner representative
Damien McElvenny	Member
Gareth Walters	Member

What does IIAC do?

12. The majority of IIAC's time is spent providing advice to the Secretary of State on the prescription of occupational diseases. IIAC's other roles are to advise on proposals to amend regulations under the Scheme, to advise on matters referred to it by the Secretary of State, guidance for medical assessors and to advise on general questions relating to the IIDB Scheme. The Council has no involvement in the decision-making of individual claims.
13. IIAC investigates diseases following referrals from the Secretary of State, correspondence from MPs, medical specialists, trade unions, and others, including topics brought to its attention by its own members and by other stakeholders. The Council also has an on-going surveillance of new literature, reports, work of other committees, IARC, court cases etc. Public meetings are an important forum to draw attention to topics for the Council to investigate.
14. Industrial diseases (prescribed diseases (PD)) are grouped according to their cause, namely the name of the disease or the type of exposure/typical jobs:

Classification	Type	No. diseases
A	Physical cause	15
B	Biological cause	15
C	Chemical cause	34
D	Any other cause	13

15. IIAC uses a number of criteria in assessing the evidence needed to prescribe a disease, including:
 - a. Scientific evidence
 - b. Consistent independent good quality epidemiological evidence that the risk in workers in a certain occupation is much greater than risk to the general population

- c. A clearly defined substance of concern, exposure and/or job/occupation
 - d. If available, evidence of a dose-response relationship between the exposure or occupation and increased disease risk
 - e. A clear definition of both the disease of concern and how to diagnose it
- 16. Practical considerations that the prescription:
 - a. Can be administered effectively by decision makers without epidemiological experience
 - b. Both disease and exposures are verifiable within scheme
 - c. The disease is a cause of genuine impairment/disablement.
- 17. The scientific evidence, which the Council requires, is obtained by:
 - a. Literature searches carried out by the IIAC scientific officer
 - b. Literature review by IIAC scientific secretariat/IIAC members
 - c. Oral and written evidence from:
 - i. Invited experts
 - ii. Action groups
 - iii. Members of the public
 - iv. Industry
 - v. Unions.
- 18. Deciding which diseases to recommend for prescription depends upon the complexity of the topic. “Straightforward” diseases include those that only occur due to particular work or are almost always associated or linked with work. This can be supported by specific medical tests showing a link with work (occupational asthma/dermatitis) or easily linked to work exposure (certain infections/chemical poisonings).
- 19. Less “clear-cut” diseases require more extensive scrutiny. These could be common in the wider public due to non-work-related causes and in individual cases there may have no reliable way to test if it is occupational or not. IIAC looks for evidence that the disease can be attributed to occupational exposure with reasonable certainty; for this purpose, ‘reasonable certainty’ is interpreted as being based on the balance of probabilities i.e., that the risk of the disease in a particular job or exposure to a hazard is more likely than not due to the occupation.
- 20. Where there are good quality epidemiological studies, the Council looks for evidence that the risk of the disease in a particular job or exposure to a hazard is more than double the risk than those not exposed. However, if there are limited epidemiological studies of long-term disabling disease with good quality occupational information, IIAC collects and collates all available qualitative and quantitative evidence on exposure, risks and disease outcomes and evaluates the strength and consistency of the information in making a judgement regarding ‘more likely than not’.
- 21. Openness and transparency are essential criteria of IIAC, and the Council ensures it meets these criteria through stakeholder engagement and through a range of publications including:

- a. Command papers – laid before Parliament.
 - b. Position papers – deposited in the libraries of the House of Commons & the Lords.
 - c. information notes.
 - d. Also, annual reports, proceedings from public meetings and the minutes from full Council and RWG meetings.
 - e. The Council can also commission reviews.
22. The current and recent work programme for the period 2019-21 includes:
- a. Command Paper:
 - b. Cutaneous malignant melanoma and occupational exposure to (natural) UV radiation in pilots and aircrew
 - c. Position Papers
 - d. COVID-19 and occupation – covered later
 - e. Firefighters and cancer
 - f. OA of the knee in footballers
 - g. Chronic obstructive pulmonary disease (COPD) and coke oven work
 - h. Occupational exposure to Silica and Asbestos and ANCA-associated vasculitis
 - i. A review of the assessment and objective testing for the vascular component of hand arm vibration syndrome (HAVS).
23. IIAC Future Work Programme:
- a. COVID-19: Continue monitoring evidence particularly for ‘Long-Covid’
 - b. Commissioned Review: comprehensive review and evaluation of the literature on selected work-related malignant and non-malignant respiratory diseases (including lung cancer and COPD) to inform update and potential expansion of the IIDB scheme
 - c. Neurodegenerative disease in footballers and in other contact sports
- Other issues:
- d. Welding fumes including lung and ocular cancers
 - e. Cleaners
 - f. Night shift work
 - g. Occupational disease in women e.g., ovarian cancer and asbestos
 - h. Update of the B diseases particularly the viruses

Comments, questions and answers from the ‘Welcoming remarks’ and ‘How IIAC evaluates evidence on health risks associated with occupational exposure’ sessions

24. No comments and no questions asked.

Presentations

COVID-19 and occupational exposure

Dr Jennifer Hoyle & Professor John Cherrie

25. A major part of the work of IIAC over the last two years has been consideration of the occupational impact of the COVID-19 pandemic. The presentation by Professor Cherrie and Dr Hoyle described transmission pathways of the SARS-CoV-2 virus and the evidence for occupations at increased risk of infection, the diagnosis and progression of COVID-19 and complications and impairments that could arise.
26. Professor Cherrie started by talking about the transmission routes. When an infected individual exhales, there will be droplets and fine aerosols. These droplets/aerosols:
 - a. May be big enough to settle on surfaces or be projectiles and transmitted towards other people
 - b. May be small enough to become airborne – inhalation
 - c. Contact with surfaces - current evidence suggests that transmission by surfaces may be less important than initially thought.
27. The settings where individuals may become infected with the virus include the workplace, although this may not be the main route of infection for some people, at home, on public transport and at social venues.
28. The effectiveness of transmission is dependent on many environmental and personal behavioral factors:
 - a. Poorly ventilated spaces increase transmission
 - b. Cold environments with dry air maintain the viability of the virus
 - c. Singing, shouting, loud talking increases emission
 - d. Wearing respirators, surgical masks and face coverings reduces emission and may offer protection
 - e. Avoiding close contact with infected individuals reduces chance of transmission.
29. The first step for the Council has been to identify occupations which were more at risk of becoming infected although the scientific evidence for this topic is still emerging and good quality epidemiological studies are not available for most occupations.
30. The risk of death for various occupations was discussed and a graphic representation was shown which indicated the most at risk occupations, from death data, from the first wave – adjusted for age. This showed many occupations which showed a more than doubled risk of death. However, after adjustment for socio-economic and geographical factors and co-morbidities the risk decreases, and the occupation is no longer such a clear descriptor of increased risk.

31. The Council has also considered information from infection studies which indicate an increased risk of infection based on measurements of antibodies in blood samples (seroprevalence) - for various occupations for example healthcare workers, transportation workers and some other groups. There is evidence of prior infection which is greater than the risk for the general population.
32. Job exposure matrices (JEMs) are another tool which IIAC can use to determine theoretical risk. These come from studies where the risk has been estimated for the risk or exposure amongst various occupations. JEMs are often used in epidemiology studies and are based on the characteristics of the work, such as proximity to other workers. Healthcare workers and those in hospitality have been perceived to be at greater risk using these approaches.
33. The Council has also considered information gained from reports of outbreaks of infection in workplaces:

Workplace Setting Type (from HPZone)	Number of Outbreaks	Number of Workplaces (England)	Outbreak Rate (per 100,000)
Manufacturers and packers of food	117	6,998	1,672
Warehouses	58	15,058	385
Manufacturers and packers of non-food	195	63,312	308
Retailers	219	195,025	112
First responders/Military sites	57	67,257	85
Distributors and transporters	84	125,414	67
Restaurants and caterers	53	117,836	45
Offices	193	721,351	27
Close contact services	13	52,866	25
No setting type assigned	54	511,071	11
Primary producers	8	93,086	9
Other	266	-	-
Total	1,317	1,969,274	67

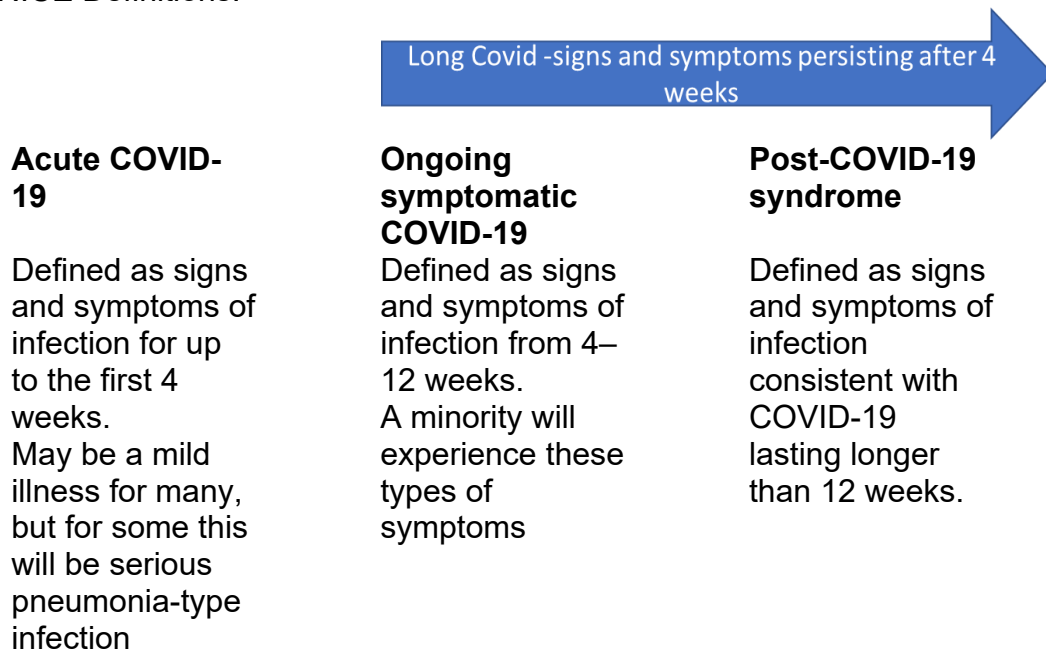
Chen et al 2021: medRxiv preprint doi: <https://doi.org/10.1101/2021.05.06.21256757>

34. Food processing workers, amongst others, have been identified as occurring in the initial phase of the pandemic. These outbreaks may not necessarily be attributable to work as other factors such as transport or home may have an influence. However, there are some suggestions there are occupational risks associated with outbreaks at work.
35. IIAC has not yet finalised how it will combine all the information it has gathered but it will take into account the various sources. The Council will be

able to come up with a list of occupations where it considers the risk of infection is more likely than not due to work.

36. The talk moved on to consider the clinical considerations of COVID-19, presented by Dr Jennifer Hoyle, a respiratory disease physician. She explained that:
 - a. Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) is a VIRUS
 - b. First identified end December 2019 in China as cause of outbreak of 'atypical viral pneumonia'.
 - c. Atypical means that it looks and behaves differently in a clinical sense compared to other causes of pneumonia frequently caused by bacterial infection.
 - d. Many bacterial pneumonias will cause an acute respiratory illness which most will recover from over a 4 to 6 week period, although for those who are susceptible such as the frail, elderly, death can occur in the initial illness.
 - e. SARS-CoV-2 has since been recognised as having more effects on health than just those affecting the respiratory system.
37. There have been various attempts to classify the clinical manifestations caused by SARS-Cov-2.

NICE Definitions:



38. NICE – the National Institute for Health and Care Excellence is a body which advises the UK on treatment, guidance and definitions.
39. There are, however, differing worldwide definitions, which are evolving, for example:
 - a. World Health Organisation (WHO) - 6th Oct 2021

- b. Post COVID-19 condition occurs in individuals with a history of probable or confirmed SARS-CoV-2 infection.
 - c. Usually, 3 months from the onset of COVID-19 with symptoms that last for at least 2 months and cannot be explained by an alternative diagnosis.
 - d. Symptoms generally have an impact on everyday functioning.
 - e. May be new onset, following initial recovery from an acute COVID- 19 episode, or persist from the initial illness. May fluctuate and relapse.
 - f. The difference in definitions is important as the WHO version excludes conditions which can be measured or detected and for the purpose of disability it is important to recognise these.
40. Dr Hoyle explained that diagnosing acute and long (or post) COVID is tricky based on evolving definitions. Most acute SARS-Cov-2infection is now confirmed using lateral flow and PCR testing or both. This testing was not freely available during the initial waves. Accuracy of tests was also initially a problem which has improved with time although is still not 100% sensitive and specific. Diagnosis of acute infection is considered if SARS-Cov-2 infection confirmed or deemed clinically probable. (WHO-2019-nCoV-Post-COVID-19-condition-Clinical-case-definition-2021.1-eng.pdf).
41. The natural history of acute COVID and long-covid is still not fully understood. Approximately 1/3rd of those infected do not develop acute symptoms and the majority recover within first few weeks of illness. However published reports indicate that approximately 10– 20% of COVID-19 patients experience lingering symptoms for weeks to months following acute SARS-CoV-2 infection. Symptoms can be varied and multi-system.
42. There have been varying estimates of how many people have symptoms of Long Covid depending on how the question was asked and who was asked. For example, an ONS study (April 2020 – August 2021) estimated the prevalence of any of 12 symptoms 12-16 weeks after infection and laboratory COVID-19 as 5.0% and the prevalence of any of 12 symptoms continuously of at least 12 weeks as 3.0% The prevalence of self-reported Long-COVID 12 weeks after infection in those with confirmed infection was 11.7% for any severity and 7.5% for those whose day-to-day activity was reduced. All this uncertainty adds to the challenge for the Council of how to interpret the data.
43. Some examples of the complications of infection and their symptoms were outlined including lung fibrosis, pulmonary embolism, stroke, myocardial infarction, and post-intensive care syndrome.
44. The issue with defining long-covid as being a diagnosis of exclusion is that many of the myriad of complications which are well recognised as being associated with acute COVID-19 infection will be missed.
45. The focus of the Council is on complications or consequences of infection with SARS-Cov-2 which cause prolonged or long-term impairment which likely lead to a disability. Issues of concern are:
- a. Do these complications have a measurable diagnostic/disability?

- b. Are they new onset?
 - c. Is the time-course appropriate in relation to likely infection?
 - d. Can the diagnosis be confirmed or deemed clinically probable and not explained by an alternative diagnosis – some studies are removing symptoms with defined pathophysiology and focusing on those with symptoms which can't be explained? This is making interpretation of these data much more difficult for the Council.
46. Other complexities of evaluation that the Council include:
- a. Evaluating the epidemiology data, where available, to ascertain if the disease was attributable to occupation.
 - b. Assessing the impact of Personal Protective Equipment (PPE) – this was not fully available to workers in the initial phases of the pandemic.
 - c. The impacts of different variants of the virus and the waves of infection.
 - d. The interaction of comorbidities and other susceptible factors.
 - e. Evaluation of the recovery phase of the illness – this still an evolving story.
47. Another question the Council has been faced with is health inequalities and if the Council has considered the effect of ethnicity on COVID-19 and subsequent outcomes.
48. Dr Hoyle highlighted the socio-economic and other inequalities in the health outcomes from COVID-19 and pointed out that this pattern in infections is not new and has been observed in previous pandemics. For example, the OpenSAFELY study of Primary care records linked to COVID deaths* found increased risk at higher ages, age 80+ Hazard Ratio (HR) 20.6 (95% Confidence Interval (CI) 18.7, 22.7) and between men and women men HR 1.59 (95%CI 1.5, 1.7) and between ethnic groups and quartile of deprivation.

Ethnicity ^a	White	1.00 (ref)	1.00 (ref)
	Mixed	1.62 (1.26–2.08)	1.43 (1.11–1.84)
	South Asian	1.69 (1.54–1.84)	1.45 (1.32–1.58)
	Black	1.88 (1.65–2.14)	1.48 (1.29–1.69)
	Other	1.37 (1.13–1.65)	1.33 (1.10–1.61)
IMD quintile	1 (least deprived)	1.00 (ref)	1.00 (ref)
	2	1.16 (1.08–1.23)	1.12 (1.05–1.19)
	3	1.31 (1.23–1.40)	1.22 (1.15–1.30)
	4	1.69 (1.59–1.79)	1.51 (1.42–1.61)
	5 (most deprived)	2.11 (1.98–2.25)	1.79 (1.68–1.91)

*Williamson et al: Nature vol 584, Aug 2020

49. It is challenging for the Council to disentangle the effect of such interrelated risk factors and the influence of occupation. Inequalities in Covid related ill-health are associated with social determinants of health (Housing, access to healthcare, living conditions) and employment determinants of health. The speaker noted that many key workers were in the lower 4 pay deciles (H&S care, education/childcare, food & necessary goods) and that non-white ethnic

groups were disproportionately represented in lower paid work such as the service sector (food, cleaning, delivery services).

Comments, questions and answers from the COVID-19 and occupational exposure session

50. Dr Rushton thanked the speakers and commented that questions on ethnicity had been submitted beforehand and were addressed in the presentation. The Chair stated that the Council is aware of the differences in ethnicity and deprivation, but due to the interrelated factors described earlier, it is difficult to establish what the influencing variables are.
51. Another pre-submitted question was addressed which asked if there was a difference between those who contracted COVID-19 in the early stages to those who contracted the disease later in the pandemic when restrictions were eased. The Chair stated there appeared to be a difference in the risk estimates and across the pandemic due to waves, lockdowns, tier-restrictions etc. This has complicated matters for the Council as when reviewing the literature, it has to be established when the studies were carried out and what measures were in place at that time. Local restrictions were also in place, which complicated matters further. Interpretating the data is complex as a result. However, the data show that there were elevated risks for healthcare workers in the first wave, probably due to lack of PPE and infection rates. There is consistent excesses all the way through for healthcare workers, but this has been shown to fluctuate when the data were collected.

Other submitted questions

52. One of a three-part question - when will the Council consider long-covid as an occupational disease. The Chair responded to say the Council is constantly monitoring the evidence and all the aspects of the sequelae of the virus as described earlier. The Council is planning another report where it hopes to make decisions, sometime in early 2022.
53. Two of the three-part question - whether just healthcare workers were being looked at and the Chair stated that all occupations were being considered. Many studies have been carried out on healthcare workers, so more data are available on this occupation, but the Council will carry out evaluations on evidence from other occupations which it is compiling.
54. Three of the three-part question - what part case reporting by sectors plays in this decision making and whether it is taken into account that time limitations and delayed diagnoses have meant that employers have not reported Covid incidents that occurred early on in the pandemic, and many in the private sector still don't report incidents now. The Chair thought this may be related to RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations) data and this is a data source which the Council is monitoring as there have been many instances reported. The Chair thought another report was due to be published on 6 December, which will be examined. The

Council will also engage with researchers who have been analysing the data from workplace outbreaks.

Attendees submitted questions using the chat facility

55. Do your considerations include the increased rate of transmission of the current variant compared with previous variants, and if so, has this impacted on your waiting of your judgments? A member responded to state the Council has been very conscious of the time development of the pandemic and changes in the variants. However, it is important to note that the Council is interested in the risk of being infected in the workplace in relation to the risk in the community, so in this respect, it is assumed that everyone is exposed to the same variant, so this shouldn't impact on the judgement. It is accepted that the current variant circulating has a great risk of infection. Another member added that patients may present with different symptoms due to the variants – the impact of vaccination rates also needs to be considered where vaccines are not effective against a variant, but this is an unknown at the moment.
56. A question was posed to the Chair – who is producing the RIDDOR report on 6 December? The Chair responded that this will be published by the Health & Safety Executive and details can be found by searching its website.
57. There were various other points and questions about diagnosis and about the accuracy of tests and things and whether or not the Council is going to be taking those into consideration. The Chair responded to say the questions would be considered and, where possible, responded to.
58. The Chair thanked the speakers and adjourned the meeting for a short break.

Reviewing occupational exposures for PD A11 (HAVS) – with Q&A

Dr Ian Lawson

59. After the short break, the meeting resumed with Dr Ian Lawson stating that the next presentation would move from a biological hazard onto a physical hazard, an 'A' disease, covering the review Council has undertaken into vibrational exposure for Prescribed Disease (PD) A11.
60. Dr Lawson gave an overview of what would be covered by the presentation, introduced attendees to hand-arm vibration syndrome (HAVS) and how this translates into PD A11.
 - a. What is HAVS & PD A11?
 - b. History of Prescription.
 - c. How is vibration exposure assessed and the exposure response relationship?
 - d. Alternative approaches to exposure equivalence.

e. Recommendations for draft command paper.

61. The Council receives many requests to review tasks or occupations not in the scheduled lists for particular prescribed diseases. In many of the cases, there may be case studies in the literature, but insufficient epidemiology to answer this 'more likely than not' question or doubling of relative risk. In the case of PD A11, the list that we have in place, at the moment, has been there since about 1985. This list differs from others, such as that from the HSE. This review was prompted by a private members bill in the Scottish Parliament that highlighted the fact that gardeners using strimmers are not currently included in the PD A11 list.
62. In order to address the lack of epidemiological evidence, it was suggested that one approach might be to examine whether it was possible to determine the equivalence exposure to the tools or jobs currently present on the list.
63. Dr Lawson then gave an overview of HAVS. There are two components of PD A11:
- a. vascular component:
 - Intense blanching of the skin, with a sharp demarcation line (finger blanching)
 - Cold induced.
 - Occurring throughout the year
 - b. sensorineural component:
 - Significant, demonstrable reduction in both sensory perception and manipulative dexterity with continuous numbness or continuous tingling.
 - All present at the same time in the distal phalanx of any finger.
64. Dr Lawson then went onto describe how this translates into the PD A11 schedule:
- Any job involving:
- the use of hand-held chain saws on wood; or
 - the use of hand-held rotary tools in grinding or in the sanding or polishing of metal, or the holding of material being ground, or metal being sanded or polished, by rotary tools; or
 - the use of hand-held percussive metalworking tools, or the holding of metal being worked upon by percussive tools, in riveting, caulking, chipping, hammering, fettling or swaging; or
 - the use of hand-held powered percussive drills or hand-held powered percussive hammers in mining, quarrying, demolition, or on roads or footpaths, including road construction; or

- the holding of material being worked upon by pounding machines in shoe manufacture.
65. An overview of the history of the prescription was given:
- a. Chequered history for review
 - b. The prescription has been reviewed a number of times
 - c. The 1970 command paper indicated that the minimum overall vibration dose was considered as early as that time and stated:
 - i. '...insistence on a minimum period of exposure to vibration, or on exposure to a given level of vibration over a specified period of time i.e., to a minimum overall 'dose' of exposure, would go some way to solving the problem of diagnosis.'
 - ii. The advice given in the 1995 command paper, which included a list of 35 tools, was not accepted.
66. The speaker moved on to discuss other command papers, where the use of exposure equivalence had been considered. For occupational deafness (Cm5672) a precedent was set where if there was regular, sustained exposure to a 19-decibel level, this could be evidence for inclusion in the list of occupations which cause occupational deafness and attract disability benefit. In the second HAVS command paper (Cm 6098), vibration exposure was discussed, and it was stated it would be ideal to look at exposure to hand-transmitted vibration and estimate the dose. However, the conclusion was this would be difficult to do and the translation of such exposures in terms of doubling of risk was rather sparse.
67. Measurement and assessment of vibration was explained:
- a. The daily vibration magnitude is referred to as A(8) measured in metres per second per second or ms⁻² for an eight-hour working day.
 - b. Vibration should be assessed in accordance with International Standard ISO 5349-1 International Organization for Standardization (ISO). Mechanical vibration – Measurement and evaluation of human exposure to hand transmitted vibration. Part 1: General
 - i. requirements. ISO 5349-1. Geneva: ISO,2001.
 - c. Workers use different tools for variable durations.
 - d. Examples of tools were given with different vibration magnitude and daily usage, indicating how the A8 value can be calculated.
68. The speaker went on to explain that the interval between first exposure and onset of finger blanching, can be from 6 months - 20+years depending on the vibration magnitude A(8). The relationship between finger blanching, the time and the vibration magnitude can be expressed as an equation giving the number of years for 10% of a group to develop finger blanching for a certain vibration magnitude (ISO 5349). For example, it would take 12 years for 10% of group to develop finger blanching if exposed to A(8) of 2.5 ms⁻².
69. The speaker went on to say the Council had considered if it might be possible to develop a model from this to estimate risk.
- a. Constitutional Raynaud's occurs in 5% men and 15% women.

- b. If, for example, 5% of finger blanching fb is the background population rate then a group with a 10% prevalence would have double the expected rate.
 - c. Vibration magnitudes are known for commonly used tools not on Schedule 1.
 - d. Could the ISO 5349 dose-response relationship provide a surrogate measure to reach this 10% fb or 'doubled' the background risk level?
- 70. However, ISO 5349-1 is based on the studies of groups of workers, and it was never intended to be used for an individual worker. Reviewers have pointed out that there are potential problems with the assumptions underlying the equation and that 'the quantitative relationships between exposure to vibration and associated health outcomes from this model were imprecise' (HSL, RR1060, 2015)
- 71. This potential model to estimate risk was shared with external experts in this field along with DWP operational staff who would need to use this for claims processing and assessment. The feedback indicated:
 - a. Symptoms onset affected by a number of independent factors and not solely predicted by vibration magnitude A(8):
 - i. individual susceptibility
 - ii. ergonomic risks
 - iii. tool maintenance
 - iv. workpiece hardness
 - b. Practical issues:
 - i. potential burden of additional information gathering
 - ii. ascertaining reliable information on tool magnitudes
 - iii. problems with individual recall of exposure.
- 72. Given the issues discussed, the Council arrived at the draft recommendations to amend the current prescription.
 - a. Exposures to vibration magnitudes of sufficient intensity and duration could potentially lead to an equivalence of exposure to those tools and processes listed in Schedule 1.
 - b. However, the exposure equivalence approach using an exposure response model was not robust enough for the calculation of a meaningful estimation of dose.
 - c. It was felt that it would be more appropriate to add to the existing list with an extended list of tools and processes of known vibration magnitudes (compiled using external expertise).
 - d. The Council will continue to review both epidemiological data and exposure data and where appropriate add further to this extended list.

73. Dr Lawson drew the presentation to a close and invited questions.

Comments, questions and answers from the 'Reviewing occupational exposures for PD A11 (HAVS)' session

- 74. Dr Lawson was asked if external temperature has an impact. Dr Lawson stated he has a paper in press which considers this topic – a cold

environment may lead to a greater prevalence. Certain parts of the world do not have many cases of Raynaud's, but workers do present with sensory symptoms, mainly because they are not exposed to the cold. Cold predates the onset of white finger, which is a sensation of cold intolerance. This could indicate a cold intolerance or the start of a sensory problem, or it could just be part of the vascular symptoms. However, this is not relevant to the circumstances required for IIDB as when claimants get through to the assessment stage, all those issues about the occupation and the detailed patient history will be recorded. The issue is, has the person been exposed to sufficient intensity and duration that would lead to the presentation of symptoms that they have at the time?

75. The Chair commented that the Council hopes the revised list will allow more claimants to be eligible, such as gardeners, and will be more inclusive than it is now. The way the suggested prescription is worded refers to more general circumstances and detailed guidance would be provided to the medical assessors and decision makers to support the claims process.
76. Dr Lawson stated that to accompany the command paper, a position paper is being drafted which reviews the available epidemiology as this is limited for this topic. Other occupations have been identified, such as dental hygienists, orthopaedic surgeons and the like which may also be included in this report.
77. An attendee asked if RIDDOR data could be used (as HAVS is a reportable condition) to establish risks for other occupations. Dr Lawson responded that RIDDOR data are of limited value as the epidemiology is still limited, but there are case reports which can be useful and identify some occupations, such as gardeners.

IIAC's proposed revision of PD D1 – Pneumoconiosis / silicosis – with Q&A

Dr Chris Stenton

78. The Chair introduced the last presentation on PD D1 which has been reviewed by Dr Chris Stenton. The Chair remarked that PD D1 has is a long-standing prescription, with ill-health in coal workers being at the very start of worker compensation, going back to the 1920-30s.
79. Dr Stenton started by giving an overview of the pneumoconiosis condition which is covered by PD D1 and various slides of chest x-rays were shown which illustrated diffuse lung shadowing (fibrosis) caused by mineral dusts.
80. 1200 cases per year awarded IIDB
 - a. Asbestos - 79%
 - b. Coal - 18%
 - c. Silica - 1%
 - d. Other - 2%
81. Dr Stenton went on to say that the causes of pneumoconiosis can often be determined by examination of x-rays or CT scans:
 - a. Asbestosis tends to affect the lower parts of lungs where a fine base work shadowing overlying the lungs is observed.
 - b. Coal and silica tend to affect the upper part of the lungs where smaller dots can gather together to form large shadows.
82. An overview of the history of the prescription was then given, pneumoconiosis has been a compensatable disease for over 100 years:
 - a. 1919 Refractories Industries (Silicosis) scheme (if dead, totally disabled, or disabled by TB)
 - b. 1927 Metal Grinding Industries (Silicosis) scheme
 - c. 1928 Various Industries (Silicosis) scheme
 - d. 1931 Asbestos industry (Asbestosis) scheme
 - e. 1943 Workmen's Compensation Act (included coal mining)
 - f. 1946 National Insurance Act
83. However, very little has changed with respect to pneumoconiosis compensation since 1946 but other aspects have changed in respiratory medicine, including improved x-rays, the use of lung function tests (1950s) and CT scanning (1980s).
84. There have also been changes in work and who can contract pneumoconiosis. In the 1950s pneumoconiosis awards were dominated by coal workers and this has gradually decreased over the years. Claims for asbestos and asbestosis has increased over the same time period but silicosis claims have consistently been at about 1% of awards.

85. The current prescription is complex having 13 different main categories and 14 sub- categories, some of which go back to 1919. A number of occupations and processing do not now occur in the UK or do not reflect current practices. These include sandblasting which has been illegal in the UK since 1950s, coal trimming which occurs rarely now, manufacturing carbon electrodes which related to aluminium smelting and exposure to dust which does not reflect current working practices.
86. More modern type of exposures is now a concern to the Council, for example cutting concrete, kitchen worktop manufacture and sandblasting denim jeans. The PD D1 prescription was reviewed to consider the new exposures as they may not be covered by current legislation. A report on silica-related disease from an all-Parliamentary group for respiratory health was another driver to review the regulations.
87. Dr Stenton stated it was the view of the Council that the prescription should be modernised and simplified.
88. This could be done by reducing and simplifying the categories:
- Asbestosis
 - Coal worker's pneumoconiosis
 - Silicosis
 - Others
89. 98% of cases would be covered by the first 3 categories, however the remaining 2% under 'others' is more of a challenge and has yet to be resolved, but conditions under consideration were discussed.
- 'Others' include:
- Mixed mineral dust fibrosis – exposure to silica and other dusts which modifies the effect of silica and typical silicosis is not observed – e.g., cutting concrete
 - Silicate pneumoconiosis - a small number of workers may still handle silicates such as talc, mica or china clay
 - Hard metal disease – tungsten carbide used in drill bits
 - Berylliosis – currently under a separate prescription (PD C17) and consideration is being given to bring this under PD D1.
90. Dr Stenton gave his views that the 3 main categories are the correct way to proceed with more work to do on the remaining 'other's category. Consideration has been given to other exposures which may cause pneumoconiosis, but these are rare and have not been reported in the UK:
- Carbon black
 - Graphite
 - Man-made mineral fibres
 - Metals Ag, Cd, Ba, Cu, Fe, Hg, Mn, Ni, Sb, Sn, Ti, V
 - Aluminium, Indium, Rare Earth Metals (cerium)
 - There are no plans to include these in the revised prescription.
91. Dr Stenton stated that the Council does not envisage any change to the amount of exposure required to qualify for an IIDB award. However, the

Council does think that assessments should be brought into line with current NHS practice. It is proposed that to qualify for an award, a specialist diagnosis would be required – normally this would be done using CT scans. This is not that different to other prescribed conditions.

92. For asbestos, consideration is often given to whether the condition is asbestosis or idiopathic lung fibrosis. The Council recognises this may be a grey area as it is sometimes difficult to distinguish between the 2 conditions and this is something which may need to be taken into account. With silicosis, sarcoidosis may be initially misdiagnosed.
93. The Council is also proposing to bring the revised PD D1 into line with other prescriptions in terms of assessment. Since 1953, if a claimant has a diagnosis of pneumoconiosis, they would be eligible for an award even if this was not causing disability. This is historic as there was a period when coalminers with minor degrees of pneumoconiosis would be moved from underground work to surface work and would be eligible for a reduced earnings allowance. The rationale for this now no longer exists.
94. This position is not new for the Council – in 1973 it stated in a paper that it could not support the conclusion reached in 1953 that virtually everyone diagnosed with pneumoconiosis ought to have an award for benefit.
95. Dr Stenton stated that the Council proposes to separate pneumoconiosis from COPD and TB as these are very different diseases and explained the unusual relationship between these. If there is more than 50% award of disability for pneumoconiosis, additional benefit can be awarded for TB & COPD. There is a recognised risk of developing TB if silicosis is present, but there is no recognised increased risk with asbestosis in coal workers pneumoconiosis.

Comments, questions and answers for IIAC's proposed revision of PD D1 – Pneumoconiosis / silicosis

96. Dr Rushton thanked the speaker and noted there were questions from attendees.
97. An attendee asked whilst there was no proposed change to the exposure, has consideration been given to changes in the length of shifts and amount of overtime worked in coalmines since the early 1990s? Dr Stenton stated that it was his understanding that there is no restriction in terms of pneumoconiosis for the length of time to have had to work underground to qualify for the award and the Council is not proposing to add any restriction there. This however, would be checked as there are qualifying periods for other conditions such as COPD.
98. A question submitted in advance of the meeting asked, “would coalminers be included for PD D11 where there is tunnelling or quarrying through granite or

sandstone?” – it would appear some coalminers are having claims turned down. This relates to carcinoma of the lung where there is accompanying silicosis. The Chair stated that they thought this issue had been resolved as the DWP accepted the Council’s recommendations that guidance should be changed as coalminers could be exposed due the nature of the work.

99. Clarification was sought on the qualifying conditions for the prescriptions PD D1 and PD D11 and it was agreed these would be checked.
100. An attendee stated they were glad that the difficulties in distinguishing between idiopathic pulmonary fibrosis (IPF) and asbestosis has been recognised, but will a claimant’s work history also be taken into account? Dr Stenton responded it would be taken in account in establishing a diagnosis but recognised that in some people it is difficult to make a definite diagnosis of either condition. There was some debate around the pressure to diagnose IPF as opposed to asbestosis as there is a treatment for IPF, but this has now been resolved.
101. The Chair thanked the speaker and the attendees for their questions.

Open forum and closing remarks

Mr Doug Russell - Representative of employed earners

Ms Lesley Francois - Legal expert

102. The Chair moved the meeting onto the open forum and explained questions would be moderated by IIAC members Mr Doug Russell and Ms Lesley Francois who introduced themselves.
103. A question submitted in advance of the meeting was discussed:
“Is IIAC currently reviewing - or does it propose to review - evidence for a link between alleged long-term (chronic) or acute ('fume event') tricresyl phosphate inhalation and Prescribed Disease C3b?”
104. The Chair stated that organophosphates had been looked at by the Council but not in cabin crew. Toxic air is a topic which the Council regularly monitors and, so far, no substantial evidence has emerged for this topic or occupation. The Chair agreed to take this up with the person who posed this question but stated there is insufficient evidence for Council to take this further at the moment.
105. A question from the ‘chat’ was discussed which related to PD A15, Dupuytren’s contracture – the issue of the onset of the condition following within the period when the person was using the handrail vibrating tools that are referred to in the prescription and asked what the definition of onset was. Would that include the development of nodules or what people would call calluses on their hands, which later turned out to develop into fixed flexion?

106. An IIAC member with expertise in this area stated that this was something the Council was currently considering, amongst others, and the Council is not able to update its position until these questions have been considered.
107. A question posed earlier asked 'what happens if a recommendation from the Council is not accepted?' The Chair responded that during her previous time on the Council, several papers were not accepted. When this has happened previously, the Chair has met with the Minister and after some dialogue, the recommendations were accepted. The Chair felt it is important to state the Council monitors what is going on and responds accordingly. The Chair went on to say that IIAC is an independent scientific body which provides advice and does not make final decisions. The Council is also not a lobby group, so when it engages with ministers or DWP officials, it is vital to maintain its independence.
108. The Chair also stated that where appropriate, IIAC will meet with ministers to talk issues through and explain some of the more complex scientific explanations in its papers as sometimes this can be difficult to portray in the wording. The Chair acknowledged that ministers may not be epidemiologists or scientists and IIAC is trying to ensure the wording is clear enough to be understood by someone who may not be familiar with the language used.
109. Sometimes the Council does not get this right and the Chair apologised for that but reiterated that advice is a 2-way thing and the Council would not just accept a decision and would seek to understand a decision by querying the reason. It would also look to see how improvements could be made and strive to ensure policy makers fully understand the recommendations.
110. The Chair stated the Council has a good working relationship with the medical assessors, DWP policy officials and decision makers who regularly attend IIAC meetings to provide updates.
111. The Council is aware that sometimes recommendations are rejected because of cost, which is outside of its control.
112. Dr Rushton drew the meeting to a close and finished by thanking everyone for coming and contributing to the public meeting. She thanked IIAC members, including the speakers, and the IIAC Secretariat for all their work in organising the meeting.

Delegate groups attending

IIAC	15
IIAC Secretariat	3
Trade Unions	8
Support Groups	5
Solicitors / Tribunal Judges	7
Medical / Research	3
Doctors / Nurses	6
Health & Safety Specialists	3
DWP Officials	5
Public / Unknown	15
Total	70