ADVISORY COMMITTEE ON DANGEROUS PATHOGENS

ANNUAL REPORT 2010

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1. INTRODUCTION

The Advisory Committee on Dangerous Pathogens (ACDP) is a non-statutory UK advisory non-Departmental Public Body. The Committee comprises a Chairman and 14 members. The membership is tripartite, with scientific experts, employer and employee representatives from across the UK.

The work of the ACDP cuts across a number of Government Departments, and thus the Committee is supported by a Secretariat with representatives from the Health and Safety Executive (HSE), the Health Protection Agency (HPA) on behalf of the Department of Health (DH) and the Department for Environment, Food and Rural Affairs (Defra).

In 2010 the ACDP held two main meetings (the 94th on 9th February, the 95th on 8th June). Agenda, papers and a summary of these meetings are available at: http://www.hse.gov.uk/aboutus/meetings/acdp/index.htm

A number of the ACDP Working Groups met throughout the year including:

- The Transmissible Spongiform Encephalopathy Working Group (TSE WG);
- The Containment Working Group
- The Drafting Group for revision of the ACDP guidance on blood-borne viruses;

A summary of these Working Groups can be found under Item 6 of this report.

2. TERMS OF REFERENCE

The Advisory Committee on Dangerous Pathogens' terms of reference are:

> "To advise the Health and Safety Executive, and Ministers for the Department of Health and the Department for Environment, Food and Rural Affairs, and their counterparts under devolution in Scotland, Wales and Northern Ireland, as required, on all aspects of hazards and risks to workers and others from exposure to pathogens."

3. DANGEROUS PATHOGENS

3.1 Background

The remit of ACDP is to provide advice to workers and others on risks from exposure to dangerous pathogens (also known as biological agents and infectious agents). Workers and others can be exposed to a range of dangerous pathogens in the workplace and through workplace activities.

Certain bacteria, fungi, viruses, internal parasites and infectious proteins (known as prions) are all defined as dangerous pathogens. Dangerous pathogens may be used intentionally at work, for example in a microbiology laboratory, but exposure can also occur that is incidental to the purpose of the work, for example when healthcare workers are exposed to infectious patients, or farmers are exposed to diseases carried

by their stock. Exposure to dangerous pathogens in the workplace could lead to the development of infectious disease, disease caused by the toxins produced by the dangerous pathogen, or an allergic reaction.

3.2 Legislation

Dangerous pathogens include infectious agents that cause diseases transmissible between animals and man (zoonoses). Such agents are controlled under human health (DH/HPA remit), health and safety (HSE remit), and animal health legislation (Defra remit) and their devolved counterparts in Northern Ireland, Scotland and Wales. The primary purpose of the latter legislation is to prevent the introduction and spread of animal diseases that affect farmed livestock and poultry.

One of ACDP's roles is to advise on worker health and safety, and much of its advice supports health and safety legislation on the control of exposure to hazardous substances such as dangerous pathogens. Health and safety legislation (principally the Control of Substances Hazardous to Health [CoSHH] Regulations 2002 (as amended)) requires employers to assess the risks from dangerous pathogens in their workplace and to prevent or control exposure. Further information can be obtained from the HSE website: http://www.hse.gov.uk/biosafety/index.htm

Defra seeks to control imports of animal pathogens and carriers from third countries under the Importation of Animal Pathogens Order 1980, and animal pathogens causing serious, predominantly exotic, diseases of farmed livestock and poultry under the Specified Animal Pathogens Order (SAPO) 1998 by means of licensing regimes. Further information can be obtained from Defra's website: http://archive.defra.gov.uk/foodfarm/farmanimal/diseases/pathogens/

There are various pieces of legislation covering public health; further information on these can be obtained from the DH website: http://www.dh.gov.uk/en/Publicationsandstatistics/Legislation/index.htm

3.3 Role of the ACDP

The work of ACDP can be broadly divided into two areas:

- Production of guidance relating to safety at work and protection of public health in the UK; and
- Provision of advice to Government on the formulation and implementation of policy and legislation, relating to specific pathogen risk issues and their impact.

ACDP makes a significant contribution to the assessment of risks to employees and the general public from infectious agents, and to ensuring that appropriate controls are in place. The Committee has produced several guidance documents that provide practical advice on the application of health and safety measures for a range of occupational groups and relating to a variety of public health issues. These can be found at: http://www.dh.gov.uk/ab/ACDP/DH_087526

4. MEMBERSHIP IN 2010

4.1 Membership of the Advisory Committee on Dangerous Pathogens (ACDP)

Independent member	Expert/Employer/ Employee representative/Lay Member	Employer
Professor George Griffin (Chair)	Expert in clinical and research microbiology and infectious diseases	St George's, University of London
Professor Colin Howard	Expert in veterinary microbiology/parasitology	The Royal Veterinary College
Dr Judith Hilton	Expert in risk assessment and management	Medicines and Healthcare products Regulatory Agency (MHRA)
Professor Will Irving	Expert in clinical virology	University of Nottingham
Ms Karen Jones	Lay Member	Air Support International, Crawley
Dr John Keddie	Employer representative	GlaxoSmithKline
Professor Dominic James Mellor	Expert in veterinary microbiology, epidemiology	University of Glasgow
Dr Phil Minor	Expert in research virology	National Institute of Biological Standards and Control
Professor Armine Sefton	Expert in medical microbiology	Bart's and The London
Mr Gordon Sutehall	Expert in laboratory health and safety	Health Protection Agency
Professor Richard Tedder	Expert in Clinical Virology	Health Protection Agency

Assessors and observers	Representing
Dr David Brown	Health Protection Agency, Centre for Infections
Mr Richard Drummond	Department for Environment, Food and Rural Affairs
Professor Brian Duerden	Department of Health
Mrs Ruth Lysons	Department for Environment, Food and Rural Affairs
Dr Brendan Mason	Public Health Wales
Miss Charlotte Mirrielees	Department of Health
Mr John Newbold	Health and Safety Executive
Dr Andy Paterson	Department for Environment Food and Rural Affairs
Dr Malcolm McWhirter	Scottish Government
Dr Andrew Riley	Scottish Government
Dr Delia Skan	Employment Medical Advisory Service, Northern Ireland
Ms Maggie Tomlinson	Department of Health

Secretariat	Representing
Ms Julia Granerod	Health Protection Agency
Ms Tess Murray	Department for Environment Food and Rural Affairs
Dr Scott Sellers	Department for Environment Food and Rural Affairs
Mr Lee Wilson	Health and Safety Executive

Four Members stood down at the end of 2009, Dr Andrew Rycroft and Dr John McLuckie, Mrs Judith Potter and Dr Peter Wilson. All members had been on ACDP for some years, and made significant contributions to the work of the committee.

There were no new Members who joined the Committee in 2010. Due to the general election in May 2010, the Appointments Committee suspended activity during purdah. After the election there was a significant backlog of appointments however, as at late 2010, the Secretariat was making steps towards securing these replacement Member appointments.

There were a number of changes to the Secretariat during 2010. Ms Tess Murray and Dr Scott Sellers replaced Miss Jessica Dean and Ms Amanda Furlonger as Defra Secretariat.

4.2 Membership of the ACDP TSE Working Group

Independent member	Employer
Professor Don Jeffries (Chair)	University of London
Mr Ray Bradley	Private BSE Consultant
Dr Adam Fraise	Queen Elizabeth Hospital, Birmingham
Professor Colin Howard	Royal Veterinary College
Professor James Ironside	University of Edinburgh
Professor Jean Manson	Neuropathogenesis Unit, Roslin Institute
Dr Phil Minor	National Institute of Biological Standards and Control
Dr Michael Painter	Public Health Consultant (retired)
Dr Geoff Ridgway	Consultant Microbiologist (retired)
Dr Roland Salmon	National Public Health Service for Wales
Mr Ron Spellman	Unison
Dr Tim Wyatt	Consultant Microbiologist (retired)

Officials and Observers	Representing
Mr Peter Bennett	Department of Health, Statistical Unit
Mr Patrick Burke	Department for Environment Food and Rural Affairs
Dr Michael Rogers/Dr Beatrix Sneller	Secretariat to the Advisory Committee on the Safety of Blood, Tissues and Organs
Dr Andrew Riley	Scottish Government
Dr Nicky Connor	CJD Incidents Panel Secretariat
Dr Irene Hill	Food Standards Agency
Mr Allan Hidderley	Medicines and Healthcare Products Regulatory Agency
Mr Mark Noterman	Department of Health, CJD Policy
Mr David Pryer	Chair of CJD Incidents Panel
Dr Peter Grimley	Spongiform Encephalopathy Advisory Committee Secretariat
Mr Nigel Tomlinson	Department of Health, Estates and Facilities

Dr Heather Elliott	Department of Health, Policy Research Programme

Secretariat	Representing
Miss Julia Granerod	Health Protection Agency

There were some changes to the TSE Working Group in 2010. These were:

- Mr Ray Bradley left the TSE Working Group in August 2010
- Dr Beatrix Sneller replaced Dr Michael Rogers as SaBTO observer in August 2010

5. Key issues discussed by ACDP in 2010

In 2010 the ACDP held two main meetings: the 94th on the 9th February and the 95th on the 8th June.

Members discussed the progress of ACDP Working Groups under the Secretariat Report at each meeting. ACDP Working Group reports for 2010 are in section 6 of this document.

5.1 94th Meeting – 9th February 2010

At the 94th meeting, members discussed:

Influenza A (A/H1N1) 2009 pandemic influenza in pigs - worker protection

HSE and Defra had with the National Pig Association (NPA) to discuss the transmission of A/H1N1 2009 flu virus from pigs to pig farm workers, the risks to farm workers' health and any need to issue further guidance to the pig industry.

Discussions concluded that the probability of the H1N1 virus transmitting from pigs to pig farm workers was very low and consequently the overall risk to the health of pig farm workers was also very low.

Existing advice in HSE Information Sheet No 2 'Common Zoonoses in Agriculture' (available http://www.hse.gov.uk/pubns/ais2.pdf) was adequate and no additional advice to pig farmers was deemed necessary. It was however, agreed that the position would be kept under review.

ACDP guidance on blood-borne viruses

HSE had agreed at a prior ACDP meeting to review outstanding legal issues and complete final editing of the guidance document. The Draft was due to be presented to HSE's Communications Directorate and published later in the year.

Needlestick injuries and the use of safe devices

Following discussions at the 93rd meeting the Secretariat had sought legal opinion on the application of COSHH on the use of "safe devices" to prevent needlestick injuries in healthcare.

The implications of the legal advice in the context of the employers' duties under COSSH to carry out local risk assessments and to apply control measures, under regulation 7 were discussed. The Committee was reminded of the hierarchy of controls to be applied:

a) Design and use of work processes, systems and engineering controls and the provision of suitable work equipment;
b) Materials and appropriate organisational measures.

Members discussed the implications of local risk assessments in the context of wider national statistical data on risks, which could negate the requirement for the NHS to introduce safe devices within their locality.

Concern was expressed as to the implications in relation to complex exposure-prone procedures, as occurred in certain surgical and emergency procedures and where it could be argued that safe working practices alone could not sufficiently control or reduce the risk of needle stick injury.

In some circumstances, there could be a compelling requirement to use safety devices to prevent needle stick injuries unless the risk assessment provided evidence to the contrary. It was agreed that surgeons need to assess the risks to healthcare workers and draw up appropriate guidance for preventing injuries during complex, risk-prone procedures. Members were informed about the new European Directive on needle sticks, the details of which would need to be taken into account in such considerations.

A/H1N1 2009 Surveillance

Defra provided the Committee with an update on the latest developments with Influenza A H1N1 (A/H1N1) 2009.

Scanning surveillance for influenza viruses in pigs was discussed and the question was raised of whether an A/H1N1 2009 infection in large pig establishments would ever clear. Defra informed Members that there was evidence of the development of herd immunity over time.

Defra informed members that the pig industry, working closely with Defra, Scottish Government and Welsh Assembly Government, had produced a voluntary Code of Practice for pig keepers focussed on influenza in pigs.

The occurrences of pandemic A/H1N1 2009 worldwide had been confirmed in pigs in many other countries including Argentina, Australia, Canada, China, Denmark, Finland, Northern Ireland, Norway, Hong Kong, Indonesia, Japan, Iceland, Ireland, Italy, Taiwan, and the USA.

Pandemic A/H1N1 2009 influenza virus had also been confirmed in turkeys in Canada, Chile and the USA; however, Defra informed Members that were are no reports of pandemic A/H1N1 2009 in turkeys in the UK at that time. Additionally, Members were informed that there were no reports of pandemic A/H1N1 2009 in domestic animals in the UK, though sporadic cases (in cats, ferrets and a dog) had been reported abroad.

There was a brief discussion on future initiatives and Defra informed Members that they were co-funding two projects with the Medical Research Council (MRC) Biotechnology and Biological Sciences Research Council (BBSRC) and the Wellcome Trust to strengthen the scientific evidence base on influenza in animals. The projects covered a ‘field population’ study to better understand the dynamic of Influenza infection in pig herds and a second, was to use in-vivo systems and study the impact of prior immunity

on infection with pandemic A/H1N1 2009 virus by providing a dynamic model of infection in pigs.

Polio

The Department of Health's UK Working Group for Containment of poliovirus had met in January 2010. HSE presented the results of their audit of laboratories on the national inventory of polio containment, the findings were to be included in a report to the World Health Organisation.

5.2 95th Meeting – 8th June 2010

At the 95th meeting Members discussed**:**

Needlestick injuries (BBV) and the use of safe devices

It was reported to the Committee that the new EU Directive on the prevention of sharps injuries in the healthcare sector had been formally adopted on 10th May 2010. The UK would have three years to implement the Directive's requirements following publication in the European Journal. The options for implementation were discussed including amendments to UK primary legislation and other non legislative options.

Members were also updated on an HSE commissioned project on evaluation of medical technology and devices to reduce sharps injuries in healthcare. The project, undertaken by Health and Safety Laboratory, involved a literature review by an assessor group, set up by the HSE and HSL, and this would be followed by a formal assessment.

Downflow ventilation

An update was provided on the negative pressure ventilation design for use in high security isolation units research, commissioned by Department of Health, which had now been completed. HSE's HSL has been asked to peer review this research and will soon report their views on the research results and their applicability in the context of high security isolation units. Once this feedback had been received ACDP would be asked to consider how to take this forward in relation to its guidance.

Review of ACDP published guidance

The proposal to review and update ACDP's occupational guidance documents in line with proposed new contained use regulations was discussed, along with an invitation for Members to be involved in the reviews. It was reported that there had been an announcement that the implementation of the regulations that would establish a single regulatory framework for work with pathogens had been delayed. This provided a wider timeframe for implementation of the changes required. It was agreed that the review would be discussed at the next meeting.

Dutch Q fever outbreak

HPA updated the Committee in response to a question at the 94th meeting regarding the adequacy of currently available Q fever diagnostic testing in the UK, in the event of a suspected new strain of *Coxiella burnetti*. It was confirmed that serological diagnostics were available and could detect antibodies of all variants of *C. burnetti*, but the test could not distinguish between strains. This was because only on very rare occasions (such as in chronic Q fever infections) would a patient test PCR positive to *Coxiella* and thereby undertake genotyping.

Griffin Investigation into *E.coli* 0157 outbreak at Godstone Farm

The Committee Chairman, who also chaired the Inquiry into the Godstone Farm VTEC 0157 outbreak that occurred in Surrey in 2009, updated Members on its progress. The report was due to be considered by the HPA Board prior to its publication.

The Chairman confirmed there would be specific recommendations set out in the report for implementation by government departments and their agencies and for local authorities. A multi agency group, chaired by the HPA, had been established to

consider the recommendations made and to oversee their implementation. The report was published on 15th June 2010 and is available online at www.griffininvestigation.org.uk.

Update on Q fever situation in the Netherlands

The Committee was updated on the situation in the Netherlands following the Q fever outbreak in animals and humans in 2009. Diagnostics suggested that the strain in the Netherlands was the same as that endemic to the UK. There had been 6 human deaths but all were reported to have had pre-existing health conditions (the majority with chronic heart disease).

The primary epidemiological factor responsible for the unusual and severe clinical picture in the Netherlands appeared to be the high density of goats populations (The Netherlands reportedly having the highest density of goats in the world) in close proximity to high density human populations.

There had been several disease control measures implemented in the Netherlands to including vaccination, a breeding ban on milking sheep or goats on farms with greater than 50 animals, culling of infected herds and flocks, restrictions on manure handling and a ban on farm visitors.

Xenotropic murine leukaemia virus-related virus (XMRV)

DH informed the Committee that a NEPNEI sub-group on XMRV had been convened in May 2010 to consider the current evidence of the role of XMRV in human disease and possible public health implications.

The sub-group concluded that on review, there was no evidence to suggest that XMRV causes human disease, nor any evidence of an association between XMRV and CFS or prostate cancer. As such, no public health action was required at that time.

The Medical Research Council were considering a number of research proposals for the development of an appropriate diagnostic test.

Changes to proposed timetable for implementing the new Single Regulatory Framework (SRF) for Contained Use work with Biological Agents

The Committee were informed by HSE that due to the announcement of the general election in 2010, ongoing factors involved in the Parliamentary process and the recent dissolution of Parliament, there would be a delay in implementation of the Single Regulatory Framework. A revised schedule was being considered with possible implementation in April 2011.

VTEC guidance for parents for animals on farms open to the public

Defra advised the Committee that the updated guidance produced by DH, HPA and Defra concerning VTEC guidance for parents regarding animals on farms open to the public had been updated and published on the HPA website in April. A review of the guidance was due to be undertaken following publication of the Griffin report in mid-2010 (see also, earlier section on Griffin Investigation).

Advisory Committee on Dangerous Pathogens (ACDP) Code of Practice update for information

The Secretariat informed Members of the revised ACDP Code of Practice with updates on the principles of engagement for their information.

A Member expressed concern that the word "indemnify" is not included in the document. A suggestion was made to make clearer in the document that the government indemnifies members of scientific advisory committees.

6. ACDP WORKING GROUPS

6.1 Transmissible Spongiform Encephalopathy Working Group (TSE WG)

The TSE WG was reconfigured in 2004 with the following terms of reference:

> *"To provide practical, scientifically based advice on the management of risks from transmissible spongiform encephalopathies (TSEs), in order to limit or reduce the risks of human exposure to or transmission of TSEs in healthcare and other occupational settings. To provide advice to ACDP, SEAC and Government Departments, as requested, and to handle issues referred to those bodies, taking into account the work of other relevant bodies."*

The TSE WG met four times in 2010 on the 12th January, 3rd March, 7th July, and 3rd November.

At each meeting, members received an update on the numbers and epidemiology of both CJD and BSE cases and a progress report on current research. Members also received feedback from the ACDP, and related committees such as the CJD Incidents Panel, the Spongiform Encephalopathy Advisory Committee (SEAC), the Advisory Committee on the Safety of Blood, Tissues and Organs (SaBTO) and the Advisory Committee on Decontamination, Science and Technology (ACDST).

The following key issues were considered by the TSE Working Group in 2010:

Review of major surgical procedures involving medium risk tissue

The risk of transmitting vCJD during surgical procedures involving medium risk tissue (e.g. liver transplants) and whether the Working Group should be encouraging safer ways to approach these procedures was discussed at the January meeting. A Surgical Subgroup was established and met on October 21st. The meeting was attended by a number of surgeons representing gastrointestinal, liver transplant and general surgery. The practicalities of current guidance for general and liver surgery were discussed and a number of conclusions were agreed. The new Annex M, 'Managing vCJD risk in surgery involving medium infectivity tissue,' is currently being drafted.

CJD Surgical Instrument Store

Instruments destined for disposal by incineration are held at the Surgical Instrument Store at Porton Down. The major aim of the store has been to provide a mechanism to get instruments out of service and deposited in a safe place. A further aim was to provide a resource of actually- or potentially-contaminated instruments that might be used in research. However, currently no such research is being conducted or planned.

The issue of what to do with the instruments was raised at the March meeting of the Working Group and at the July meeting a paper containing a "snap shot" analysis of the content of the CJD Surgical Instruments Store was presented. The lack of detailed clinical information and information about decontamination history severely limited the usefulness of the archived instruments for research studies. Following discussions, it was agreed that the instruments currently held in the store should be incinerated and that the ongoing collection of instruments should cease.

Annex A1 and A2 updates

Annex A1, 'Distribution of TSE infectivity in human tissues and body fluids,' and Annex A2, 'Distribution of infectivity in animal tissue and body fluids,' were revised in light of the updated WHO 2010 Guidelines on Tissue Distribution of Infectivity in TSE.

Annex A1 was published in December 2010 at:
http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@ab/documents/digitalasset/dh_122645.pdf

Annex A2 was published in July 2010 at:
http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@ab/documents/digitalasset/dh_118443.pdf

Annex H

In April 2009, the Association of Anatomical Pathology Technologists (AAPT) wrote to the Working Group with suggestions for new wording and a new approach to Annex H (After death). The Working Group considered the response from the AAPT and welcomed many of the comments made. Annex H was revised to incorporate comments from the AAPT and published in May 2010 at:
http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@ab/documents/digitalasset/dh_116540.pdf

Approved List of Biological Agents

The ACDP Approved List of Biological Agents is currently under review. The TSE section of the List was considered at the November 2010 meeting of the Working Group, revised following discussions and presented to ACDP for final approval.

Procedures involving the dura

Two changes were agreed with regards to dura mater:

1. Based on data from the manufacturer, the Working Group agreed at the January 2010 meeting that the risk of transmitting vCJD via human-derived dura mater grafts must be very low indeed. The wording of Annex J, 'Assessment to be carried out before surgery and/or endoscopy to identify patients with, or at increased risk of, CJD or vCJD,' was modified to reflect this change.

2. Dura mater was reclassified as low infectivity tissue but procedures conducted on intradural tissues (i.e. brain, spinal cord and intracranial sections of cranial nerves) or procedures in which human dura mater is implanted in a patient, remain high risk. Annex A1, Part 4 (Infection control of CJD, vCJD and other human prion diseases in healthcare and community settings) and Annex J were revised accordingly.

Skedbush Farm

A risk assessment had been prepared by the Roslin Institute in anticipation of their decision to vacate a farm where studies on scrapie and BSE in sheep and goats had previously been conducted. The Working Group was asked to review and comment on whether the actions described to reduce risk were appropriate.

ACDP Secretariat
May 2011