

ADVISORY COMMITTEE ON DANGEROUS PATHOGENS

Secretariat Report for the 85th meeting of the ACDP, and matters arising from the 84th meeting

1. This paper includes reports on progress made with matters arising from the last meeting, reports from ACDP Working Groups and other relevant advisory committees, as well as other items that may be of interest to members.

Matters arising from the 84th meeting

ACDP appointments

2. Following interviews held in the last quarter of 2006, five new members were appointed. They are:

Ms Karen Jones
Mr John McLuckie
Mrs Judith Potter
Dr Andrew Rycroft
Professor Armine Sefton

3. In addition, four existing members were re-appointed. They are:

Professor Tony Hart
Professor Will Irving
Dr Diana Westmoreland
Dr Peter Wilson

Reports from ACDP Working Groups

Steering Group for revision of the ACDP guidance on blood-borne viruses

4. The virology and health & safety legislation sections are in the process of being re-drafted. It is anticipated that the virology section will be circulated to expert members of the steering group in February. The intention is to produce a final draft of the guidance by spring 2008.

TSE Working Group

5. The TSE Working Group met on the 22nd November 2006.

Annex J – pre-surgery assessment to identify patients with or at risk of CJD

6. Annex J had been published omitting advice that had been considered previously on the quarantining of instruments used for emergency neurosurgery on unconscious patients for whom no past medical history was available. Initial enquiries had established that there may be more cases involving unconscious

patients than originally thought. Therefore, the potential impact of quarantining expensive and difficult to replace neurosurgical instruments needed further consideration and more information on patient numbers was being sought.

Annex F – Decontamination of endoscopes

7. The TSE WG had decided that a negative post-mortem finding for an asymptomatic patient at risk of vCJD could not exclude the possibility of infectivity being present due to the sensitivity of current tests to detect PrP^{Sc}. Therefore, paragraph F20 of Annex F was revised to reflect this decision since the current version advised that an instrument could be returned to use following a negative post-mortem test. However, the Working Group agreed that the revised version of Annex F would only be published once the amendment concerning endoscope washers had also been included.
8. It was also agreed that the DH should take steps to ensure that instruments removed from use were sent to the store at the HPA Porton Down site so there were sufficient instruments for testing new decontamination technologies.

Annex A1 – Distribution of TSE Infectivity in human tissues and body fluids, and Annex A2 – Distribution of TSE infectivity in animal tissue and body fluids

9. A revised version of the WHO *Guidelines on tissue infectivity distribution in transmissible spongiform encephalopathies* had been published in June 2006 following an international workshop to consider new evidence. Consequently, a number of amendments to A1 and A2 were suggested, and agreed, by Working Group members to ensure consistency with the WHO guidelines and current evidence.

British Dental Association advice on infection control (A12)

10. The Chairman had requested that the TSE WG was consulted on the 2006 revision of the BDA A12 document which provides a guide to all aspects of infection control in dentistry, including the potential transmission of CJD, on the basis that more detailed advice is available elsewhere. Ms Ruth Gasser, Head of Quality and Standards (Dentistry) at the Department of Health, attended the Working Group meeting on the 22nd November to present the revised A12 document. Following comments and suggestions from members on the guidance, the Chairman wrote to Ms Ruth Gasser with the TSE WG's response. A copy of this letter is attached as Annex A of this report.

Revision of the 1996 ACDP guidance *Management & Control of Viral Haemorrhagic Fevers*

11. A meeting of Key Players to discuss the re-drafting of this guidance was held in May 2006. It was agreed that the scope of the revised guidance would be widened from providing advice on the agents of VHF that are known to be readily capable of person-to-person transmission (i.e. Lassa, Ebola, Marburg and Crimean/Congo haemorrhagic fever) to cover all hazard group 4 agents. It was felt that a smaller summary leaflet should also be developed as a user-friendly document for A&E staff, GPs and others.
12. The next step was to convene a number of sub-group meetings to look specifically at patient management aspects (including secondary containment, waste disposal issues, transportation of patients) and laboratory aspects (sample

handling and transportation, laboratory testing arrangements) in further detail. The membership and agendas for these sub-groups are currently being finalised, and it is hoped that the first sub-group meetings will take place in March and April 2007.

13. Following the sub-group meetings, DH is leading on the re-drafting of the guidance, with support from HSE. It is likely that drafting from members of the subgroups will be necessary to cover specific issues. It is hoped that delivery of the re-drafted guidance will be in early 2008.

Seasonal influenza vaccination programme for poultry workers

14. An ad-hoc working group meeting of the Advisory Committee on Dangerous Pathogens (ACDP) was held on 4th December 2006 to revisit the recommendation made in October 2005 that poultry workers should be given seasonal influenza vaccine routinely.
15. After reviewing any scientific developments relating to the risk of re-assortment of avian influenza viruses and current activity of seasonal influenza virus in the UK, this committee concluded the scheme should be implemented in January 2007. The draft minutes and statement from this meeting are included with this report.
16. Further to this meeting the DH announced on 8th January 2007 that it would offer seasonal influenza vaccine this winter, to poultry workers who have direct close contact with poultry. The scheme, which will commence on 22 January and run until 31 March, will be implemented through Primary Care Trusts (PCTs). The DH has provided PCTs with material for setting up arrangements for delivering the vaccine including Guidance for PCTs and information for poultry workers. Copies of the leaflets produced are included with this report. This programme is different to the contractual arrangements for the seasonal flu vaccination programme for clinical at-risk groups such as people aged 65 and over. PCTs are being provided with the required amount of vaccine to immunise poultry workers together with additional resources for delivering the vaccine.

Other Matters

ACDP guidance on BSE

17. ACDP guidance on Bovine Spongiform Encephalopathy entitled 'BSE - Occupational Guidance' was published in January 2007. It replaces previous guidance that was issued in 1996. The guidance is available at the following link: <http://www.hse.gov.uk/biosafety/information.htm>.

House of Commons Science and Technology Committee enquiry

18. On 19 December 2006, HSE responded to an enquiry from the House of Commons Science and Technology Committee about containment requirements in relation to avian flu virus. The two questions, and the response that was prepared in consultation with Defra and DH, is attached as Annex B of this report.

ACDP Transmissible Spongiform Encephalopathies Working Group

Miss Ruth Gasser
Head of Quality and Standards (Dentistry)
Department of Health
New Kings Beam House
22 Upper Ground
London SE1 9BW

18th December 2006

Dear Miss Gasser,

**Re: revision of the British Dental Association advice sheet A12 –
Infection control in dentistry**

I am writing on behalf of the ACDP Transmissible Spongiform Encephalopathies Working Group to thank you for the opportunity to respond to the revision of the BDA A12 document on infection control.

The document was discussed at the 9th meeting of the TSE Working Group on 22nd November 2006. The Group realised that members may be submitting comments on general aspects of infection control and other pathogens, as individuals. With this in mind, we focused particularly on matters related to CJD and other human TSEs appearing on pages 10 and 18.

1) We suggest that the section on single use (disposable) items on page 10 should be clearer, more positive and unambiguous. If, as stated, an instrument cannot be safely decontaminated and is described as single use, it surely **MUST** not be re-used. This is the instruction associated with the symbol displayed in this section. The accompanying phraseology: "can be used on a patient during one treatment session and then discarded", "Anyone who decontaminates and reuses a single use item bears full responsibility for its safety and effectiveness", is allowing people loopholes to justify breaking the rules.

2) In the section on endodontic files and reamers, the Working Group felt that in the light of a significant evidence base relating to the difficulty/impossibility of removing residual protein from these devices, the recommendation should be stronger than "consider single use". The Working Group suggested that where files and reamers were not 'single use' they should either be discarded after use or retained for future use on the same patient i.e. single patient use. The WG was aware that "consider single use" was the wording in the SEAC statement.

3) In the section on Transmissible Spongiform Encephalopathies (page 18) the Working Group felt that the importance of thorough washing should be more strongly

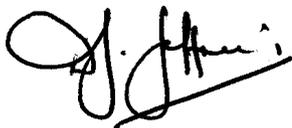
emphasised. Perhaps this could be highlighted by pointing out that a large number of common disinfectants have no effect on the agents, some even stabilise infectivity, and some strains (particularly vCJD and BSE) are resistant to autoclaving at any temperature and for any holding time. With the uncertainty over the inactivation of prions with any standard form of disinfection or sterilisation process, thorough washing becomes of utmost importance to patient safety.

In this section, we recommend providing the specific website address for the ACDP TSE Working Group guidelines.

4) As a general comment, we suggest that the advice over use of detergents and disinfectants is vague and not helpful.

- In the pre-sterilisation cleaning section (page 7) an enzymatic cleaner is recommended if a significant delay is likely. Is there an evidence base for this recommendation, and what sort of enzyme are the British Dental Association drafting group considering?
- Hand protection, 3rd bullet (page 15): What sort of hand disinfectant do the British Dental Association drafting group advise adding to liquid soap? Are there potential adverse effects from regular use of a range of disinfectants (types, strengths, duration of efficacy etc.)? In the light of the statement in 2) above implying a very limited range of effective disinfectants, it seems sensible to direct practitioners towards those that are recommended rather than to leave them to the mercy of equipment manufacturers and their own individual preferences. I suspect that A12 needs to be directed specifically at primary care dentists in the UK where the background prevalence of vCJD may be much higher than anywhere else in the world.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'D.J. Jeffries', with a long horizontal stroke underneath.

Professor D.J. Jeffries

Chair, ACDP Transmissible Spongiform Encephalopathies Working Group

ANNEX B

HOUSE OF COMMONS SCIENCE & TECHNOLOGY COMMITTEE "AVIAN INFLUENZA"

Memorandum by the Health and Safety Executive (HSE) on questions posed by the Committee

This memorandum has been prepared by HSE in consultation with the Department of Environment, Food and Rural Affairs (Defra) and the Department of Health.

Question 1: what is the difference in requirements for level 3 and level 4 pathogen containment facilities and identifying which would be required for the avian flu virus, should it mutate to become transmissible between humans?

Containment requirements for laboratories working with highly pathogenic avian influenza viruses (including strain H5N1)

1. Work with highly pathogenic avian influenza viruses (including strain H5N1) must be adequately contained to protect human health and the environment. As such it is subject to both the Specified Animal Pathogens Order 1998 (SAPO), administered by Defra, and the Control of Substances Hazardous to Health Regulations 2002 (as amended) (COSHH), administered by HSE.
2. Containment under SAPO is primarily concerned with preventing the escape of pathogens from a laboratory into the environment. Containment under COSHH is primarily concerned with protecting workers and preventing spread into the wider community.
3. The key containment measures are set out below.
4. For worker protection, the Advisory Committee on Dangerous Pathogens (ACDP) has recommended that HPAs, including H5N1 and strains that may have originated from human infections, should be handled at ACDP containment level 3 (ACDP CL3).
5. However, whilst HPAs can cause human disease, they are still primarily pathogens of birds. The serious consequences of an accidental release into the environment, means that these strains are categorised as requiring the highest level of containment under SAPO – containment level 4 (SAPO 4).
6. As there is a difference in the recommended containment levels, users must apply the higher of the two standards. This means that laboratories working with HPAs must meet the full requirements of SAPO 4, which should also be sufficient to protect human health.

Question 2: what would be required for the avian flu virus, should it mutate to become transmissible between humans?

7. Should a HPAI mutate to become transmissible between humans, the approach to containment would have to be reviewed according to the circumstances. For example, if human-to-human transmission was seen in the Far East, and the virus had been restricted to particular areas (as happened with SARS), containment of clinical samples being brought into UK laboratories would need to be maintained at a high level (SAPO 4) to ensure that work activities did not lead to the introduction of the virus into the environment or the UK population.
8. During the first stages of any human pandemic (i.e. before a strain is routinely circulating in the UK), HSE has developed a strategy based on advice from ACDP that all intentional work with such viruses should be carried out at ACDP CL3. However, once the virus is the predominant circulating strain and a vaccine is available, it could be handled at ACDP CL2. Under these circumstances, containment requirements under SAPO would also be reduced. A system of derogations from SAPO 4 has been agreed between Defra and the Health Protection Agency, whose laboratories would be carrying out the diagnostic work on clinical specimens.

Key containment measures under SAPO 4 and ACDP 3

SAPO level 4

The key measures are:

- The laboratory must be mechanically ventilated, with the input air being passed through a High Efficiency Particulate Filter (HEPA) and extract air passing through double HEPA filters.
- The laboratory must be maintained at a negative pressure with respect to atmosphere of at least -75 Pascals.
- The laboratory must be sealable to permit fumigation.
- Entrance into the laboratory is restricted to trained personnel, who must enter and leave through an airlock, and must shower before leaving.
- All work with live pathogens must be carried out in a microbiological safety cabinet.
- All waste must be sterilised before leaving the laboratory, by passing through a double-ended autoclave.

ACDP level 3

The key measures are:

- The laboratory must be mechanically ventilated, with the extract air passing through a single HEPA filter.
- The laboratory must be maintained at negative pressure with respect to atmosphere (pressure not specified, but guidance recommends -30 to -50 Pascals).
- The laboratory must be sealable to permit fumigation.
- All work with live pathogens must be carried out in a microbiological safety cabinet.
- Entrance into the laboratory is restricted to trained personnel.

ACDP level 2

The key measures are:

- Entrance into the laboratory is restricted to trained personnel.
- Aerosol generating procedures with viable organisms must be carried out in a microbiological safety cabinet.
- The laboratory benches should be of a suitable quality and easy to clean.
- Waste should be disposed of safely.

Health and Safety Executive

19 December 2006