PART 4

INFECTION PREVENTION AND CONTROL OF CJD and VARIANT CJD IN HEALTHCARE AND COMMUNITY SETTINGS

Summary of advice

Part 4 provides advice on safe working practices with the aim of preventing the transmission of CJD and other human prion diseases in hospital and community healthcare settings

Note: Variably Protease-Sensitive Prionopathy (VPSPr)

i) VPSPr is a recently described human prion disease, which appears to be a rare sporadic disorder affecting patients in an age range similar to those affected by sporadic CJD.

ii) VPSPr is transmissible experimentally to transgenic mice expressing varying levels of the human prion protein, but the results suggest that the potential for human to human transmission may be limited[1,2]. The transmission characteristics of VPSPr are different from those of sporadic CJD and variant CJD in the transgenic mice studied.

iii) There is very little data on the detection of abnormal prion protein outside the CNS in VPSPr, so as for other prion diseases where these data are lacking (e.g. many genetic forms of prion disease) it seems reasonable to assume a similar tissue distribution to sporadic CJD, since there is no evidence to indicate that VPSPr is a BSE-related disorder.

iv) Further advice on VPSPr can be obtained from NCJDRSU (Professor James Ironside or Dr Anna Molesworth).

[1] Diack *et al.* 2014.Variably Protease-Sensititve Prionopathy, a Unique Prion Variant with Inefficient Transmission Properties. *Emerging Infectious Diseases* 12, 1969-79.

[2] Notari *et al.* 2014. Transmission Characteristics of Variably Protease-Sensitive Prionopathy. *Emerging Infectious Disesases* 12, 2006-14.

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Changes new to this edition:

Date	Change	Notes
February 2015	Change of terminology from 'CJD or vCJD' to 'CJD', for simplicity.	Changed throughout the document as appropriate.
February 2015	Note on VPSPr updated	This change affects the information box on the first page.
February 2015	Description of the use of the term CJD updated	This change affects paragraph 4.2.
February 2015	Addition of information on where advice can be sought.	Paragraph 4.4 has been added.
February 2015	Clarification that the Health and Social Care Act 2008 covers England only.	This change affects paragraph 4.7.
February 2015	Reference to the CJD Incidents Panel removed, as this Panel no longer exists.	This change affects paragraph 4.18.
February 2015	Reference to Department of Health's 'Transmissible spongiform encephalopathy: Safe working and the prevention of infection' removed, as this document is no longer available.	This change affects paragraph 4.36
February 2015	Additional guidance for single-use instruments.	This change affects the first bullet point in paragraph 4.47.
February 2015	Addition of a section about problems with surgical instruments.	Paragraph 4.56 has been added.

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Introduction

4.1 This guidance provides advice on safe working practices with the aim of preventing the transmission of CJD and variant CJD (vCJD) in hospital and community healthcare settings.

4.2 The use of the term "CJD" in this guidance encompasses sporadic CJD, sporadic fatal insomnia, variable protease-sensitive prionopathy (VPSPr), vCJD, iatrogenic CJD, genetic CJD, Fatal Familial Insomnia (FFI) and Gerstmann-Straussler-Scheinker Disease (GSS), in order to assist readability.

4.3 In this guidance document, the term 'patients with, or "at increased risk" of, CJD' is used as a proxy for all patient groups in Table 4a. Where this term is used, the guidance is applicable to all patient groups in this Table.

4.4 Advice is available from the Public Health England CJD Section, who can be contacted on 020 8327 6090.

Other relevant guidance

Caring for patients with, or "at increased risk" of, CJD

4.5 "Creutzfeldt-Jakob Disease: Guidance for Healthcare Workers" advice on the care of patients with CJD is available at http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4082370.pdf. This document refers to a "key worker" who will be constantly involved in the co-ordination of care of a patient with a clinical diagnosis of CJD, in either a hospital or community setting. This is a named professional with a good knowledge of local health and social services, who should be identified as soon as possible after a diagnosis of CJD seems likely. The "key worker" will provide continuing support and be the primary source of advice and information, to both the patient and their family, and act as a patient advocate for necessary resources. Practical advice on developing patient care packages can be obtained from the National Care Team (http://www.cjd.ed.ac.uk/care.html) at the National

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CJD Research and Surveillance Unit, Western General Hospital, Crewe Road, Edinburgh, telephone number 01313 537 1980.

4.6 Guidance from the vCJD Clinical Governance Advisory Group, available here, recommends that GPs should remain the patient's clinical guardian and anchor, supported by consultant neurologists and the specialist national centres – the National CJD Research and Surveillance Unit and the National Prion Clinic.

Management arrangements for infection prevention and control

4.7 Under the Health and Social Care Act 2008, NHS bodies in England have to register with the Care Quality Commission (CQC), and as a requirement of registration they must protect patients, workers and others who may be at risk of acquiring a healthcare-associated infection (including CJD).

4.8 The 2008 Act enables the Secretary of State for Health to issue a Code of Practice relating to healthcare-associated infections and the CQC to assess compliance with registration requirements on cleanliness and infection prevention and control by reference to this Code. A revised 'Code of Practice on the prevention and control of infections and related guidance' was published in January 2011: https://www.gov.uk/government/publications/the-health-and-social-care-act-2008-code-of-practice-on-the-prevention-and-control-of-infections-and-related-guidance

4.9 The Code of Practice applies to registered providers of all healthcare and adult social care in England. This includes NHS bodies, independent providers, primary dental care providers, independent sector ambulance providers and primary medical care providers

4.10 The Code of Practice supersedes 'Standards for Better Health' and Controls Assurance standards.

4.11 The Code of Practice does not replace the requirement to comply with any other legislation that applies to health and social care services; for example, the Health

and Safety at Work *etc*. Act 1974, and the Control of Substances Hazardous to Health Regulations 2002.

Tissue infectivity

4.12 Annexes A1 and A2 provide a summary of the distribution of abnormal prion protein in human tissues, a classification of infectivity in human tissues and body fluids in CJD, based (where available) on data from experimental studies, and a summary of information from other studies of natural transmissible spongiform encephalopathy (TSE) diseases in humans and animals.

Iatrogenic transmission

4.13 There is no evidence to suggest that CJD is spread from person to person by close contact, though it is known that transmission of CJD can occur in specific situations associated with medical interventions – iatrogenic infections. Due to the possibility of iatrogenic transmission of CJD, precautions need to be taken for certain procedures in healthcare, to prevent transmission.

CJD (except vCJD)

4.14 Worldwide, cases of iatrogenic CJD have been associated with the administration of hormones prepared from human pituitary glands and *dura mater* preparations, and one case has been reported associated with a corneal graft (it is possible that the corneal tissue was contaminated by posterior segment tissue during processing). Iatrogenic transmission has also been identified following neurosurgical procedures with inadequately decontaminated instruments or EEG needles.

vCJD

4.15 There have been no known transmissions of vCJD via surgery or use of tissues or organs. Since 2003, four cases (three clinical and one asymptomatic) of presumed person-to-person transmission of vCJD infection via blood transfusion of non-leucodepleted red blood cells have been reported in the UK. In addition, in 2009, a case of probable asymptomatic vCJD infection via plasma products was reported in a haemophiliac.

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4.16 Since 1997, when the theoretical risk of vCJD transmission through blood was first considered, the UK blood services have taken a number of precautionary measures to protect the blood supply and associated plasma products. These precautionary measures to reduce the risk include:

- Blood components, plasma products or tissues obtained from any individual who later develops vCJD are withdrawn/recalled to prevent their use;
- Plasma for the manufacture of plasma products, such as clotting factors, has been obtained from non-UK sources since 1998;
- Synthetic (recombinant) clotting factor for treatment of haemophilia has been provided to those aged under 16 since 1998, and for all patients in whom it is suitable since 2005;
- Since 1999 white blood cells (which may carry a significant risk of transmitting vCJD) have been reduced in all blood used for transfusion, a process known as leucodepletion;
- Since 2002, fresh frozen plasma for treating babies and young children born on or after 1 January 1996 has been obtained from the USA. In 2005 its use was extended to all children up to the age of 16;
- Since 2004, individuals who have received a transfusion of blood components since January 1980, or are unsure if they have had a blood transfusion, are excluded from donating blood or platelets;
- Since 2009, cryoprecipitate, a special cold-treated plasma preparation, has been imported from the USA for children up to the age of 16.

Patient categorisation

4.17 When considering measures to prevent transmission to patients or staff in the healthcare setting, it is useful to make a distinction between:

- symptomatic patients, *i.e.* those who fulfil the diagnostic criteria for definite, probable or possible CJD (see Annex B for full diagnostic criteria), and;
- patients “at increased risk” *i.e.* those with no clinical symptoms, but who are “at increased risk” of developing CJD, because of their family or medical history. For this group of patients, the infection prevention and control advice differs in some circumstances for:

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- Patients at increased risk of genetic CJD
- Patients at increased risk because they have received blood from an individual who later developed variant CJD
- Other patients at increased risk of iatrogenic CJD

Table 4a details the classification of the risk status of symptomatic patients and patients “at increased risk”.

Patients “at increased risk” of CJD

4.18 A number of patients have been identified as “at increased risk” due to a medical or family history which places them “at increased risk” of developing CJD. These patient groups are outlined in Table 4a.

4.19 In most routine clinical contact, no additional precautions are needed for the care of patients in the “at increased risk” patient groups. However, when certain invasive interventions are performed, there is the potential for exposure to the agents of TSEs. In these situations it is essential that control measures are in place to prevent iatrogenic CJD transmission.

4.20 All people who are “at increased risk” of CJD are asked to help prevent any further possible transmission to other patients by following this advice:

- Don’t donate blood. No-one who is “at increased risk” of CJD, or who has received blood donated in the United Kingdom since 1980, should donate blood;
- Don’t donate organs or tissues, including bone marrow, sperm, eggs or breast milk;
- If you are going to have any medical, dental or surgical procedures, tell whoever is treating you beforehand so they can make special arrangements for the instruments used to treat you if you need certain types of surgery or investigation;
- You are advised to tell your family about your increased risk. Your family can tell the people who are treating you about your increased risk of CJD if you need medical or surgical procedures in the future and you are unable to tell them yourself.

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Table 4a: Categorisation of patients by risk

	Patient groups
Symptomatic patients	• Patients who fulfill the diagnostic criteria for definite, probable or possible CJD (see Annex B for diagnostic criteria) • Patients with neurological disease of unknown aetiology, who do not fit the criteria for possible CJD, but where the diagnosis of CJD is being actively considered
Patients "at increased risk" from genetic forms of CJD	• Individuals who have been shown by specific genetic testing to be at significant risk of developing CJD. • Individuals who have a blood relative known to have a genetic mutation indicative of genetic CJD; • Individuals who have or have had two or more blood relatives affected by CJD or other prion disease
Patients identified as "at increased risk" of vCJD through receipt of blood from a donor who later developed vCJD	• Individuals who have received labile blood components (whole blood, red cells, white cells or platelets) from a donor who later went on to develop vCJD.
Patients identified as "at increased risk" of CJD through iatrogenic exposures	• Recipients of hormone derived from human pituitary glands, *e.g*. growth hormone, gonadotrophin, are "at increased risk" of transmission of sporadic CJD. In the UK the use of human-derived gonadotrophin was discontinued in 1973, and use of cadaver-derived human growth hormone was banned in 1985. However, use of human-derived products may have continued in other countries after these dates. • Individuals who underwent intradural brain or intradural spinal surgery before August 1992 who received (or might have received) a graft of human-derived dura mater are "at increased risk" of transmission of sporadic CJD (unless evidence can be provided that human-derived dura mater was not used). • Individuals who have had surgery using instruments that had been used on someone who went on to develop CJD, or was "at increased risk" of CJD; *Continued overleaf*

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	• Individuals who have received an organ or tissue from a donor infected with CJD or "at increased risk" of CJD; • Individuals who have been identified as having received blood or blood components from 300 or more donors since January 1990; • Individuals who have given blood to someone who went on to develop vCJD; • Individuals who have received blood from someone who has also given blood to a patient who went on to develop vCJD; • Individuals who have been treated with certain implicated UK sourced plasma products between 1990 and 2001

4.21 GPs are asked to record their patient's CJD risk status in their primary care records. The GP should also include this information in any referral letter should the patient require surgical, medical or dental procedures.

4.22 Recipients of ocular transplants, including corneal transplants, are not considered to be "at increased risk" of CJD.

Hospital care of CJD patients

4.23 There is no evidence that normal social or routine clinical contact with a CJD patient presents a risk to healthcare workers, relatives or others. Isolation of patients with CJD is not necessary, and they can be nursed in an open ward using standard infection prevention and control precautions in line with those used for all other patients.

Sample-taking and other invasive medical procedures

4.24 When taking samples or performing other invasive procedures, the possible infectivity of the tissue(s) involved must be considered, and if necessary suitable precautions taken. Information on tissue infectivities for CJD is included in Annex A1 of this guidance. **It is important to ensure that only trained staff, who are aware of the hazards, carry out invasive procedures that may lead to contact with medium or high risk tissue.**

4.25 Body secretions, body fluids (including saliva, blood, cerebrospinal fluid [CSF] and excreta) are all low risk for CJD. It is therefore likely that the majority of

samples taken or procedures performed will be low risk. Contact with small volumes of blood (including inoculation injury) is considered low risk, though it is known that transfusion of large volumes of blood and blood components may lead to vCJD transmission.

4.26 Blood and body fluid samples from patients with, or "at increased risk" of, CJD should be treated as potentially infectious for blood-borne viruses and handled with standard infection prevention and control precautions as for any other patient, *i.e.*;

- use of disposable gloves and eye protection where splashing may occur;
- avoidance of sharps injuries and other forms of parenteral exposure;
- safe disposal of sharps and contaminated waste in line with locally approved arrangements; and
- single-use disposable equipment should be used wherever practicable.

4.27 When taking biopsy specimens of medium or high risk tissue, for example tonsil biopsy in a patient with suspected vCJD, or intestinal biopsy in a patient "at increased risk" of vCJD, every effort should be taken to minimise the risk of infecting the operator or contaminating the environment.

4.28 In the event of needing to consider a brain biopsy, advice from the Department of Health, endorsed by the Chief Medical Officer, is available in Annex I.

4.29 Samples from patients with, or "at increased risk" of, CJD should be marked with a 'Biohazard' label, and it is advisable to inform the laboratory in advance that a sample is being sent.

Spillages

4.30 When a spillage of <u>any</u> fluid (including blood and CSF) from a patient with, or "at increased risk" of, CJD occurs in a healthcare setting, the main defence is efficient removal of the contaminating material and thorough cleaning of the surface.

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4.31 Standard infection prevention and control precautions should be followed for any spillages, which should be cleared up as quickly as possible, keeping contamination to a minimum. Disposable gloves and an apron should be worn when removing such spillages.

4.32 For spillages of large volumes of liquid, absorbent material should be used to absorb the spillage, for which a number of proprietary absorbent granules are available.

4.33 Standard disinfection for spillages (eg. 10,000ppm chlorine-releasing agent) should be used to decontaminate the surface after the spillage has been removed. A full risk assessment may be required. It should be noted that none of the methods currently suggested by WHO for prion inactivation are likely to be fully effective.

4.34 Any waste (including cleaning tools such as mop heads, and PPE worn) should be disposed of as clinical waste (see below and Table 4b).

Clinical waste

4.35 General guidance on the safe management of clinical waste is given in the Department of Health's guidance document 'Health Technical Memorandum 07-01: Safe Management of Healthcare Waste', available at: https://www.gov.uk/government/publications/guidance-on-the-safe-management-of-healthcare-waste.

4.36 According to this guidance, "Waste known or suspected to be contaminated with transmissible spongiform encephalopathy (TSE) agents, including CJD, must be disposed of by high temperature incineration in suitable authorised facilities."

4.37 The ACDP TSE Sub Group have considered the disposal of clinical waste, and have agreed that tissue and contaminated materials such as dressings and sharps, from patients with, or "at increased risk" of, CJD, should be disposed of as in Table 4b.

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Table 4b: Disposal of clinical waste from patients with, or "at increased risk" of, CJD

Diagnosis	High or medium risk tissue*	Low risk tissue and body fluids**
Definite	Incinerate	Normal clinical waste disposal
Probable	Incinerate	Normal clinical waste disposal
"At increased risk"	Incinerate	Normal clinical waste disposal

** See Annex A1*

*** Tissues and materials deemed to be low risk include body fluids such as urine, saliva, sputum, blood, and faeces. Blood from vCJD patients is considered to be low risk except when transfused in large volumes.*

Childbirth

4.38 In the event that a patient with, or "at increased risk" of, CJD becomes pregnant, it is important to ensure that patient confidentiality is properly maintained, and that any action taken to protect public health does not prejudice individual patient care.

4.39 Childbirth should be managed using standard infection prevention and control procedures. The placenta and other associated material and fluids are designated as low risk tissues, and should be disposed of as clinical waste, unless they are needed for investigation, in which case the precautions outlined in paragraphs 4.24-4.29 above should be followed. Instruments should be handled following the advice in paragraphs 4.46-4.56 below.

Bed linen

4.40 Used or fouled bed linen (contaminated with body fluids or excreta), should be washed and dried in accordance with current standard practice. No further handling or processing is necessary.

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Occupational exposure

4.41 Although cases of CJD have been reported in healthcare workers, there have been no confirmed cases linked to occupational exposure. However, it is prudent to take a precautionary approach.

4.42 The highest potential risk in the context of occupational exposure is from exposure to high infectivity tissues through direct inoculation, for example as a result of sharps injuries, puncture wounds or contamination of broken skin, and exposure of the mucous membranes.

4.43 Healthcare personnel who work with patients with definite, probable or possible CJD, or with potentially infected tissues, should be appropriately informed about the nature of the risk and relevant safety procedures.

4.44 Compliance with standard infection prevention and control precautions, in line with those set out in "Guidance for Clinical Health Care Workers: Protection Against Infection with Blood-borne Viruses" recommended by the Expert Advisory Group on AIDS and the Advisory Group on Hepatitis will help to minimise risks from occupational exposure.

4.45 For any accident involving sharps or contamination of abrasions with blood or body fluids, wounds should be gently encouraged to bleed, gently washed (avoid scrubbing) with warm soapy water, rinsed, dried and covered with a waterproof dressing, or further treatment given appropriate to the type of injury. Splashes into the eyes or mouth should be dealt with by thorough irrigation. The accident should be reported as defined in local practice, and an accident or incident form completed.

Surgical procedures and instrument management

4.46 For all patients with, or "at increased risk" of, CJD, the following precautions should be taken for surgical procedures:

- Wherever appropriate and possible, the intervention should be performed in an operating theatre;

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- Where possible, procedures should be performed at the end of the list, to allow normal cleaning of theatre surfaces before the next session;
- Only the minimum number of healthcare personnel required should be involved;
- Protective clothing should be worn, *i.e.* liquid repellent operating gown, over a plastic apron, gloves, mask and goggles, or full-face visor;
    - for symptomatic patients, this protective clothing should be single-use and disposed of in line with local policies;
    - for patients "at increased risk" of CJD, this protective clothing need not be single-use and may be reprocessed;
- Single-use disposable surgical instruments and equipment should be used where possible, and subsequently destroyed by incineration or sent to the instrument store;
- Effective tracking of reusable instruments should be in place, so that instruments can be related to use on a particular patient.

Single-use instruments

4.47 Single-use instruments are utilised variably across surgical specialities and NHS Trusts. The following should be taken into account when using single-use instruments:

- The quality and performance of single-use instruments should be equivalent to those of reusable instruments with appropriate procurement, quality control and audit mechanisms in place. This should include assessment of residual post-production organic contamination;
- Procurement should be quality-based not cost-based, with the minimum safe functional requirements of each instrument purchased being understood by the purchaser;
- For reusable instruments there is an internal quality control, with instruments noted as faulty being either repaired or returned to the system manufacturer. A similar process needs to be put in place for any single-use instrument that is purchased;

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- A CE mark is not necessarily a mark of quality of instruments, and quality-control of sub-contractors is often difficult when the number of instruments increases.

Handling of instruments that are not designated as single-use

4.48 Where single-use instruments are not available, the handling of reusable instruments depends on:

- how likely the patient is to be carrying the infectious agent (the patient's risk status);
- whether the patient has, or is "at increased risk" of, CJD; and
- how likely it is that infection could be transmitted by the procedure being carried out *i.e.* whether there is contact with tissues of high or medium infectivity.

4.49 Tables 4c and 4d separately set out the actions to be taken for instruments used on patients with or "at increased risk" of CJD. The differences in instrument management are due to differences in tissue infectivities between CJD and vCJD. These actions are also summarised in the algorithm at the end of this document.

Quarantining instruments

4.50 Annex E provides guidance on the procedures that should be followed when quarantining surgical instruments is considered.

Decontamination of instruments

4.51 **Effective decontamination is key to reducing the risk of transmission of CJD through surgery.** Annex C contains advice on the general principles of decontamination for TSE agents, and Table C3 contains a list of selected guidelines and standards related to decontamination.

4.52 It is important that the efficacy, safety, and compatibility with other decontamination processes of products and technologies claiming to remove or inactivate prion protein from contaminated medical devices in laboratory and

clinical practice, is established. Until this occurs, clinicians and laboratory managers should ensure that current guidelines are followed.

Table 4c: Handling of instruments – patients with, or "at increased risk" of, CJD (other than vCJD)

Tissue Infectivity	Status of patient		
	Definite or probable	**Possible**	**At increased risk**
High* Brain Spinal cord Cranial nerves, specifically the entire optic nerve and the intracranial components of the other cranial nerves Cranial ganglia Posterior eye, specifically the posterior hyaloid face, retina, retinal pigment epithelium, choroid, subretinal fluid and optic nerve Pituitary gland	single-use or Destroy or Quarantine for re-use exclusively on the same patient	single-use or Quarantine for re-use exclusively on the same patient pending diagnosis	Single-use or Destroy or Quarantine for re-use exclusively on the same patient
Medium Spinal ganglia Olfactory epithelium	Single-use or Destroy or Quarantine for re-use exclusively on the same patient	Single-use or Quarantine for re-use exclusively on the same patient pending diagnosis	Single-use or Destroy or Quarantine for re-use exclusively on the same patient
Low	No special precautions	No special precautions	No special precautions

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Table 4d: Handling of instruments – patients with, or "at increased risk" of vCJD

Tissue Infectivity	Status of patient		
	Definite or probable	**Possible**	**At increased risk**
High* Brain Spinal cord Cranial nerves, specifically the entire optic nerve and the intracranial components of the other cranial nerves Cranial ganglia Posterior eye, specifically the posterior hyaloid face, retina, retinal pigment epithelium, choroid, subretinal fluid and optic nerve Pituitary gland	Single-use or Destroy or Quarantine for re-use exclusively on the same patient	Single-use or Quarantine for re-use exclusively on the same patient pending diagnosis	Single-use or Destroy or Quarantine for re-use exclusively on the same patient
Medium Spinal ganglia Olfactory epithelium Tonsil Appendix Spleen Thymus Adrenal gland Lymph nodes and gut-associated lymphoid tissues	Single-use or Destroy or Quarantine for re-use exclusively on the same patient	Single-use or Quarantine for re-use exclusively on the same patient pending diagnosis	Single-use or Destroy or Quarantine for re-use exclusively on the same patient
Low	No special precautions	No special precautions	No special precautions

*Although dura mater is designated low infectivity tissue, procedures conducted on intradural tissues (*i.e.* brain, spinal cord and intracranial sections of cranial nerves) or procedures in which human dura mater has been implanted in a patient prior to 1992, are high risk and instruments should be handled as such.

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Incineration of instruments

4.53 The instruments should already be in a combustible sealed container. This should then be disposed of via the clinical waste stream, ensuring that this results in incineration.

Complex instruments

4.54 Some expensive items of equipment, such as drills and operating microscopes, may be prevented from being contaminated by using shields, guards or coverings, so that the entire item does not need to be destroyed. In this case, the drill bit, other parts in contact with high or medium risk tissues, and the protective coverings, then need to be incinerated. However, in practice, it may be difficult to ensure effective protective covering, and advice should be sought from neurosurgical staff and the manufacturer to determine practicality.

Use of laser for tonsillectomy – smoke plumes

4.55 Some ENT surgeons may use laser techniques as an alternative to 'conventional' surgery for tonsillectomy. There is no evidence of the transmission of TSEs by the respiratory route. Any risk to surgeons from smoke plumes is thought to be very low, but there are no data on vCJD. General guidance on the safe use of lasers is available from Medicines and Healthcare products Regulatory Agency (MHRA) - Device Bulletin 2008(03) 'Guidance on the safe use of lasers, intense light source systems and LEDs in medical, surgical, dental and aesthetic practices' – available at: https://www.gov.uk/government/publications/guidance-on-the-safe-use-of-lasers-intense-light-source-systems-and-leds.

Problems with surgical instruments

4.56 If any problems are identified with instruments or sets of instruments, this should be referred to MHRA through the Yellow Card Scheme (https://yellowcard.mhra.gov.uk/).

Endoscopy

4.57 Annex F contains advice on the precautions to be taken for endoscopic procedures on patients with, or "at increased risk" of, CJD.

Ophthalmology

4.58 Annex L contains advice on the precautions to be taken for ophthalmic procedures on patients with, or "at increased risk" of, CJD.

Anaesthesia and intensive care

4.59 The Association of Anaesthetists of Great Britain and Ireland (AAGBI) in 2008 published an update to their guidance "Infection Control in Anaesthesia." This guidance includes a section on prion diseases and can be found here.

Community healthcare of CJD patients

4.60 People should not be dissuaded from routine contact with CJD patients as both CJD and vCJD are not thought to present a risk through normal social or routine clinical contact.

4.61 No special measures over and above standard infection prevention and control precautions are generally required for caring for CJD patients in the community, as it is unlikely that procedures will be adopted that will lead to contact with high or medium risk tissues.

Caring for symptomatic patients at home

4.62 Those caring for patients at home should be advised of the standard infection prevention and control practices that would apply to any patient. They should be provided with disposable gloves, paper towels, waste bags and sharps containers, as appropriate. Provision should be made with the Local Authority for the removal and disposal of clinical waste and sharps from the home.

4.63 Late stage CJD patients may experience tissue breakdown and the development of extensive pressure sores. These lesions should be dressed regularly, using standard infection prevention and control precautions, and contaminated dressings disposed of as normal clinical waste.

Spillages

4.64 It is assumed that all spillages in the community will be of low risk material, for example blood and urine. Standard infection prevention and control precautions

should be followed to clear up spillages of material from patients with, or "at increased risk" of, CJD in the community. Spillages should be cleared up as quickly as possible, keeping contamination to a minimum. Disposable gloves and an apron should be worn when removing such spillages. The surface should then be washed thoroughly with detergent and warm water.

4.65 For spillages of large volumes of liquid, absorbent material should be used to absorb the spillage. A number of proprietary absorbent granules are available for such use, including those containing sodium dichloroisocyanurate, but it should be noted that these do not deactivate TSE agents.

4.66 Any waste (including cleaning tools such as mop heads, and PPE worn) should be disposed of as normal clinical waste.

Clinical waste

4.67 Clinical waste should be disposed of as set out in Table 4b.

Bed linen

4.68 Patients' clothes and bed linen can be washed as normal, although in the interests of general hygiene it may be preferable to wash fouled linen separately. Commercial laundry services can be used as an alternative and, particularly where patients are incontinent, a laundry service can be of great help to carers.

Pregnancy

4.69 In the event that a patient with, or "at increased risk" of, CJD becomes pregnant, no additional infection prevention and control precautions need to be taken during the pregnancy. If a home delivery is decided upon, it is the responsibility of the midwife to ensure that any contaminated material is removed and disposed of in line with the procedures described in paragraph 4.39.

Dentistry

4.70 The risks of transmission of infection from dental instruments are thought to be very low provided satisfactory standards of infection prevention and control and decontamination are maintained. There is no reason why any patient with, or "at

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increased risk" of, CJD, should be refused routine dental treatment. Such people can be treated in the same way as any member of the general public.

4.71 Information for dentists about the management of patients with, or "at increased risk" of, CJD can be found in *Decontamination Health Technical Memorandum 01-05: Decontamination in primary care dental practices (March 2013)* at: https://www.gov.uk/government/publications/decontamination-in-primary-care-dental-practices. This also includes advice for dentists on the re-use of endodontic instruments and vCJD.

4.72 Dental instruments used on patients with, or "at increased risk" of, CJD can be handled in the same way as those used in any other low risk surgery, *i.e*. these instruments can be reprocessed according to best practice and returned to use. Dentists are reminded that any instruments labelled by manufacturers as 'single-use' should not be re-used under any circumstances.

4.73 Advice on the decontamination of dental instruments can be found in the Department of Health guidance HTM01-05 *Decontamination Health Technical Memorandum 01-05: Decontamination in primary care dental practices (March 2013)*. This guidance has been produced to reflect a reasonable and rational response to emerging evidence around the effectiveness of decontamination in primary care dental practices, and the possibility of prion transmission through protein contamination of dental instruments. It is available at: https://www.gov.uk/government/publications/decontamination-in-primary-care-dental-practices.

After death

4.74 Guidance on dealing with the bodies of patients with, or "at increased risk" of, CJD, is contained in Annex H. This includes advice on carrying out post mortem examinations and transportation of bodies, and advice for undertakers on embalming, funerals and cremations.

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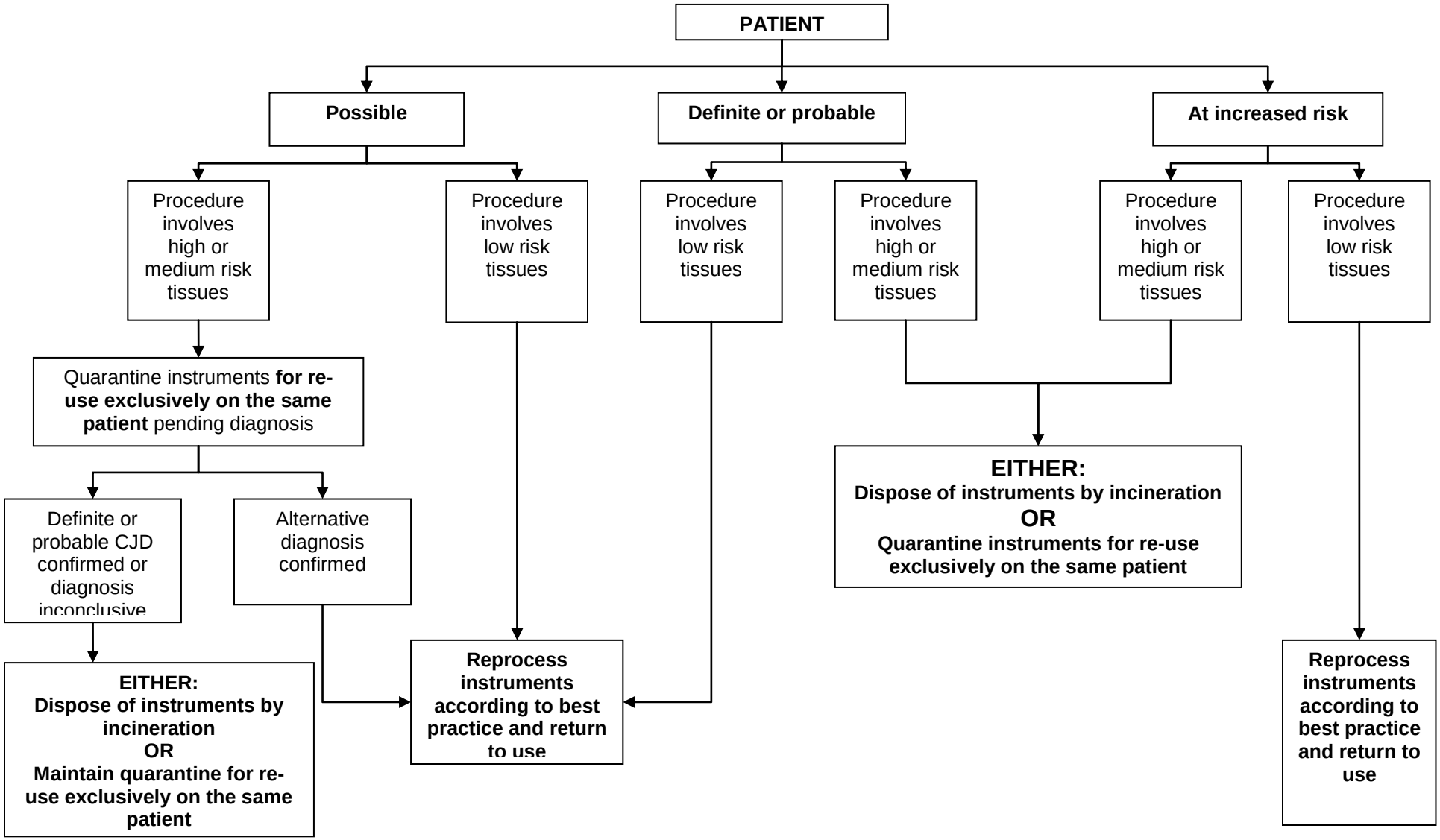
Algorithm chart for precautions for reusable instruments for surgical procedures on patients with, or "at increased risk" of, CJD, vCJD and other human prion diseases



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