

86 Bibury Road, Hall Green Birmingham, B28 0HQ

Tel: +44 (0) 121 624 7737, Fax; +44 (0) 121 244 8379

Email: [gill@consultantsagency.com](mailto:gill@consultantsagency.com) Web: [www.consultantsagency.com](http://www.consultantsagency.com)

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### **Exposure Prone Procedure clarification:**

1. **Exposure prone procedures are those invasive procedures where there is a risk that injury to the worker may result in the exposure of the patient's open tissues to the blood of the worker. These include procedures where the worker's gloved hands may be in contact with sharp instruments, needle tips or sharp tissues (e. g. spicules of bone or teeth) inside a patient's open body cavity, wound or confined anatomical space where the hands or fingertips may not be completely visible at all times. However, other situations, such as pre- hospital trauma care and care of patients where the risk of biting is regular and predictable, should be avoided by health care workers restricted from performing exposure prone procedures.**
  
2. **When there is any doubt about whether a procedure is exposure prone or not, expert advice should be sought in the first instance from a consultant occupational health physician who may in turn wish to consult the UK Advisory Panel for Health Care Workers Infected with Blood-borne Viruses (UKAP). Some examples of advice given by UKAP about exposure prone procedures are provided in Guidance on the management of HIV/ AIDS infected health care workers and patient notification (issued under cover of Health Service Circular 1998/ 226) \* . **These may serve as a guide, but cannot be seen as necessarily generally applicable, as the working practices of individual health care workers vary.****
  
3. **Procedures where the hands and fingertips of the worker are visible and outside the patient's body at all times, and internal examinations or procedures that do not involve possible injury to the worker's gloved hands from sharp instruments and/ or tissues, are considered not to be exposure prone, provided routine infection control procedures are adhered to at all times.**
  
4. **Examples of procedures that are not exposure prone include:**
  - **taking blood (venepuncture);**
  - **setting up and maintaining IV lines or central lines (provided any skin tunnelling procedure used for the latter is performed in a nonexposure prone manner i. e. without the operator's fingers being at any time concealed in the patient's tissues in the presence of a sharp instrument);**
  - **minor surface suturing;**
  - **the incision of external abscesses;**
  - **routine vaginal or rectal examinations;**
  - **simple endoscopic procedures.**
  
5. **The decision whether an HIV, hepatitis B or hepatitis C infected worker should continue to perform a procedure, which itself is not exposure prone, should take into account the risk of complications arising which necessitate the performance of an exposure prone procedure; only reasonably predictable complications need to be considered in this context.**

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Notes to the above:

\* Revised guidance to replace the above has recently been out for consultation. A final version of the revised guidance will be issued in Spring 2003. See <http://www.doh.gov.uk/aids.htm>

**Exert from: HIV Infected Health Care Workers – A Consultation Paper on Management and Patient Notification: Annex A – Examples of UKAP advice on Exposure Prone Procedures:**

The following advice has been given by UKAP in relation to specialities and procedures:

**5.1 Accident and Emergency: A+ E staff who are restricted from performing EPPs should not provide prehospital trauma care (see Paramedics).**

These staff should not physically examine or otherwise handle acute trauma patients with open tissues because of the unpredictable risk of injury from sharp tissues such as fractured bones. Cover from colleagues who are allowed to perform exposure prone procedures would be needed at all times to avoid this eventuality.

Other exposure prone procedures which may arise in an A+ E setting would include rectal examination in presence of pelvic fracture, deep suturing to arrest haemorrhage and internal cardiac massage. In addition, situations where risk of biting of health care workers' fingers is considered significant (such as a violent patient or during an epileptic fit) should be avoided where possible unless the EPP restricted worker is the only person available to provide an immediate life saving intervention. Mouth to mouth resuscitation should not be withheld if the EPP restricted worker is the only immediately available person competent to provide this, but ideally should be delegated to a colleague not restricted from performing EPPs. (see Resuscitation).

5.2 Anaesthetics : Procedures performed purely percutaneously are not exposure prone, nor have endotracheal intubation nor the use of a laryngeal mask been considered so. Arterial cutdown involving tissue dissection has been considered exposure prone. Skin tunnelling (used in some pain control procedures) may or may not be exposure prone depending on whether the operator's fingers are at any time concealed in the patient's tissues in the presence of a sharp instrument. It is considered possible to perform a skin tunnelling procedure in a non- exposure prone manner.

5.3 Bone Marrow transplants Not exposure prone.

5.4 Cardiology Percutaneous procedures including angiography/ cardiac catheterisation are not exposure prone, provided cutdown is not performed to obtain vascular access. Arterial cutdown involving tissue dissection is considered exposure prone. Implantation of permanent pacemakers (for which a skin tunnelling technique is used to site the pacemaker device subcutaneously) may or may not be exposure prone. This will depend on whether the operator's fingers are or are not concealed from view in the patient's tissues in the presence of sharp instruments during the procedure [see 5.2].

5.5 Chiropodists – see Podiatrists

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- 5.6 Dentistry (including hygienists) - The majority of procedures in dentistry are exposure prone, with the exception of examination using a mouth mirror only.
- 5.7 Ear, Nose and Throat Surgery (Otolaryngology) ENT surgical procedures generally should be regarded as exposure prone with the exception of simple ear or nasal procedures, and procedures performed using endoscopes (flexible and rigid) provided fingertips are always visible. Non-exposure prone ear procedures include stapedectomy/ stapedotomy, insertion of ventilation tubes and insertion of a titanium screw for a bone anchored hearing aid.
- 5.8 Endoscopy - Simple endoscopic procedures (eg gastroscopy, bronchoscopy) have not been considered exposure prone but should be avoided by EPP restricted health care workers if a significant risk of biting of the worker's fingers is deemed to be present such as in a violent or fitting patient.  
In general there is a risk that surgical endoscopic procedures (e. g. cystoscopy, laparoscopy – see below) may escalate due to complications which may not have been foreseen and may necessitate an open exposure prone procedure. The need for cover from a colleague who is allowed to perform exposure prone procedures should be considered as a contingency.
- 5.9 General Practice - Exposure prone procedures are rare in General Practice. Possible areas where they may be encountered are minor surgery, obstetrics and trauma situations. See relevant sections for procedures.
- 5.10 Gynaecology (see also Laparoscopy) - Open surgical procedures are exposure prone. Many minor gynaecological procedures are not considered exposure prone, examples include dilatation & curettage (D& C), suction termination of pregnancy, colposcopy, surgical insertion of depot contraceptive implants/ devices, fitting intrauterine contraceptive devices (coils), and vaginal egg collection provided fingers remain visible at all times when sharp instruments are in use. Performing cone biopsies with a scalpel (and with the necessary suturing of the cervix) would be exposure prone. Cone biopsies performed with a loop or laser would not in themselves be classified as exposure prone, but if local anaesthetic was administered to the cervix other than under direct vision i. e. with fingers concealed in the vagina, then the latter would be an exposure prone procedure.
- 5.11 Haemodialysis/ Haemofiltration - See Renal Medicine.
- 5.12 Laparoscopy - Mostly non- exposure prone because fingers are never concealed in the patient's tissues. Exceptions are, exposure prone if main trochar inserted using an open procedure, as for example in a patient who has had previous abdominal surgery. Also exposure prone if rectus sheath closed at port sites using J- needle, and fingers rather than needle holders and forceps are used.

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In general there is a risk that a therapeutic, rather than a diagnostic, laparoscopy may escalate due to complications which may not have been foreseen necessitating an open exposure prone procedure. The need for cover from a colleague who is allowed to perform EPPs should be considered as a contingency.

- 5.13 Midwifery - Simple vaginal delivery and the use of scissors to make an episiotomy cut are not exposure prone. Infiltration of local anaesthetic prior to episiotomy, suturing of an episiotomy and attaching sharp scalp electrodes to baby's head are considered exposure prone.
- 5.14 Minor Surgery - In the context of GP minor surgery and elsewhere: excision of lipomata and sebaceous cysts should not be performed by an EPP restricted HCW. Any more complex procedures which are occasionally performed in GPs' surgeries by doctors with appropriate experience, such as herniorrhaphy, are exposure prone also.
- 5.15 Needlestick/ Occupational Exposure to HIV - Health care workers need not refrain from performing exposure prone procedures pending follow up of occupational exposure to an HIV infected source. The combined risks of contracting HIV infection from the source patient, and then transmitting this to another patient during an exposure prone procedure is so low as to be considered negligible. However in the event of the worker being diagnosed HIV positive, such procedures must cease in accordance with this guidance.
- 5.16 Nursing - General nursing procedures do not include exposure prone procedures. The duties of operating theatre Medical Locums should be considered individually. See also sections on Accident and Emergency, Resuscitation and Renal Medicine/ Nursing.
- 5.17 Obstetrics/ Midwifery - See midwifery. Obstetricians may also perform other surgical procedures, many of which will be obviously exposure prone according to the criteria.
- 5.18 Operating Department Assistant/ Technician - General duties do not normally include exposure prone procedures.
- 5.19 Ophthalmology - With the exception of orbital surgery which is usually performed by maxillo-facial surgeons (who perform many other EPPs), routine ophthalmological surgical procedures are not exposure prone as the operator's fingers are not concealed in the patient's tissues. Exceptions may occur in some acute trauma cases, which should be avoided by EPP restricted surgeons.
- 5.20 Orthodontics - Because of the presence of sharp wires on fixed orthodontic appliances which may cause injury to the orthodontist's fingers inside the mouth, and the need for oral examination which may involve the use of sharp instruments, it would be difficult for a worker unfit for EPPs

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to pursue a career in orthodontics. See also Dentistry as some orthodontists perform general dental procedures, the majority of which are exposure prone.

- 5.21 Paediatrics - Neither general nor neonatal/ special care paediatrics has been considered likely to involve any exposure prone procedures, with the exception of cutdown to obtain vascular access (involving tissue dissection). Paediatric surgeons do perform EPPs.
- 5.22 Paramedics - In contrast to other emergency workers, a paramedic's primary function is to provide care to patients. Direct patient care including intravenous cannulation is not a risk to patients as it is not exposure prone; however, paramedics who are EPP restricted should not perform duties at emergency sites because of risk of injury due to the unpredictability of the situation.
- 5.23 Pathology - In the event of injury to an EPP restricted pathologist performing a post mortem examination, the risk to other workers handling the same body subsequently is so remote that no restriction is recommended.
- 5.24 Podiatrists - For podiatrists who are not trained in and do not perform surgical techniques, routine procedures are not exposure prone. EPP restricted podiatrists should not train in surgical techniques, nor should an EPP restricted surgical podiatrist continue to perform surgery. Prior to formalising criteria for exposure prone procedures, the UKAP agreed with a representative from the podiatry profession that there was risk that injury to a podiatrist could result in contamination of a patient's open tissues with the podiatrist's blood.
- 5.25 Radiology - Arterial cutdown involving tissue dissection should not be performed by EPP restricted workers. All percutaneous procedures, including imaging of the vascular tree, biliary system and renal system, drainage procedures and biopsies as appropriate, are not exposure prone procedures.
- 5.26 Renal Medicine - Obtaining vascular access at the femoral site in a distressed patient may constitute an exposure prone procedure as the risk of injury to the HCW may be significant. This is more likely to be a problem for haemofiltration (often performed in an emergency) than for haemodialysis (more likely to be instigated electively and patients less likely to be distressed than those who need haemofiltration).  
The working practices of those staff who supervise haemofiltration and haemodialysis circuits do not include exposure prone procedures.
- 5.27 Resuscitation - Unless an equally competent colleague who is allowed to perform exposure prone procedures is present, EPP restricted HCWs should provide immediate life saving mouth to mouth resuscitation if they are competent so to do; potential benefit to the patient greatly outweighs the small risk of BBV transmission in these circumstances.



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5.28 Surgery (see also Laparoscopy, Minor Surgery) - Open surgical procedures are exposure prone. This applies equally to major organ retrieval because of the risk of contamination of the organ during the procedure and the potential risk to the recipient.