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England

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Obstetrics and gynaecology (O&G) exposure prone procedure (EPP) categorisation

Advice from the United Kingdom Advisory
Panel for Healthcare Workers Infected
with Bloodborne Viruses (UKAP)

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Executive summary

This exposure prone procedure (EPP) categorisation list is not exhaustive of all procedures carried out in obstetrics and gynaecology, but is to be used as a guide only. Individual variation between surgeons and personal interpretation of the procedures listed in level zero has the potential to elevate risk into a higher EPP risk category.

Although laparoscopic procedures are generally performed with hands outside of the body and hence would not be classified as exposure prone, there may be some instances where the particular techniques used would render them exposure prone. Where, due to unforeseen complications, therapeutic laparoscopies escalate to an open procedure, these would then become category 3 exposure prone procedures. The need to employ other techniques may also render a laparoscopic technique exposure prone where it was not previously.

It is important that patients are selected carefully where a HCW's competencies are restricted and that adequate back up is in place to take over if required.

In any case of uncertainty about any of the procedures listed here, or procedures that have not been included, please contact the UKAP Secretariat for guidance at ukap@phe.gov.uk

Exposure prone procedures (EPPs)

Provided appropriate infection prevention and control precautions are adhered to scrupulously at all times, the majority of clinical procedures (including many which are invasive) in the healthcare setting pose no risk of transmission of bloodborne viruses (BBVs) from an infected healthcare worker (HCW) to a patient, and can safely be performed.

Those procedures where an opportunity for HCW-to-patient transmission of BBV does exist are described as exposure prone, where injury to the HCW could result in the worker's blood contaminating the patient's open tissues. This is described as 'bleed-back'. The majority of HCWs do not perform EPPs.

EPPs include procedures where the worker's gloved hands may be in contact with sharp instruments, needle tips or sharp tissues 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. Other situations, such as pre-hospital trauma care, should be avoided by HCWs restricted from performing EPPs, as they could also result in the exposure of the patient's open tissues to the blood of the worker.

The definition of EPPs given above embraces a wide range of procedures, in which there may be very different levels of risk of bleed-back. A risk-based categorisation of clinical procedures has been developed, including procedures where there is negligible risk of bleed-back (non-EPP) and three categories of EPPs with increasing risk of bleed-back.

The definitions and examples of categories 1, 2 and 3 are:

Category 1

Procedures where the hands and fingertips of the worker are usually visible and outside the body most of the time and the possibility of injury to the worker's gloved hands from sharp instruments and/or tissues is slight. This means that the risk of the HCW bleeding into a patient's open tissues should be remote.

Category 2

Procedures where the fingertips may not be visible at all times but injury to the worker's gloved hands from sharp instruments and/or tissues are unlikely. If injury occurs it is likely to be noticed and acted upon quickly to avoid the HCW's blood contaminating a patient's open tissues.

Category 3

Procedures where the fingertips are out of sight for a significant part of the procedure, or during certain critical stages, and in which there is a distinct risk of injury to the worker's gloved hands from sharp instruments and/or tissues. In such circumstances it is possible that exposure of the patient's open tissues to the HCW's blood may go unnoticed or would not be noticed immediately.

Non-exposure prone procedures

Non-EPPs are those 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 prevention and control procedures are adhered to at all times.

Gynaecological EPP categorisation

Cervix uteri

| EPP Category | Procedure |
|--|---|
| Category 1 (Lowest risk of bleed-back) | NONE IDENTIFIED |
| Category 2 (Intermediate risk of bleed-back) | NONE IDENTIFIED |
| Category 3 (Higher risk of bleed-back) | Amputation of cervix uteri |
| | Cone biopsy of cervix uteri – performed with a knife* |
| | Excision of lesion of cervix uteri – performed with a knife |
| <p>*Performing cone biopsies with a knife (and with the necessary suturing of the cervix) would constitute an exposure prone procedure. Cone biopsy performed with a loop or laser would not, in itself, be classified as exposure prone, but if local anaesthetic were administered to the cervix other than under direct vision and with fingers in the vagina the procedure would become exposure prone; however this would not be regarded as good practise or standard technique.</p> | |

Turn overleaf for non-EPPs within cervix uteri

| Category Zero (NOT exposure prone, no risk of bleed- back) | Procedure |
|--|--|
| | Colposcopy (+/- biopsy) ¹ |
| | Cone biopsy of cervix uteri - laser / loop |
| | Punch biopsy of cervix uteri |
| | Excision of lesion of cervix uteri - loop |
| | Dilatation of cervix uteri and curettage of uterus including polypectomy and diathermy of cervix |
| | Laser destruction of lesion of cervix uteri (+/- colposcopy or polypectomy) |
| | Cauterisation of lesion of cervix uteri (+/- loop diathermy, colposcopy or polypectomy) |

¹Whilst colposcopy related procedures are not EPPs, if bleeding occurs and suturing is required, they may become exposure-prone.

Vagina/Perineum

| EPP Category | Procedure |
|--|--|
| Category 1 (Lowest risk of bleed-back) | NONE IDENTIFIED |
| Category 2 (Intermediate risk of bleed-back) | Operations on female perineum Incision of introitus of vagina |
| Category 3 (Higher risk of bleed-back) | Cystourethroplasty Other obliteration of vagina Excision of septum of vagina Excision of lesion of vagina (e.g. warts and cysts) Operations on vagina including reconstruction Anterior +/- posterior colporrhaphy and amputation of cervix uteri (including primary repair of enterocele) Posterior colporrhaphy Anterior +/- posterior colporrhaphy (including primary repair of enterocele) Repair of enterocele (in isolation) +/- posterior colporrhaphy Anterior (+/- posterior) colporrhaphy with vaginal hysterectomy (including primary repair of enterocele) Repair of vesicovaginal fistula Repair of urethrovaginal fistula Repair of rectovaginal fistula Repair of ureterovaginal fistula Repair of cervical uterovaginal fistula Vaginectomy Sacrocolpopexy (including laparoscopic) Sacrospinous fixation Posterior infracoccygeal sacropexy for vaginal vault prolapse |

Turn overleaf for non-EPPs within vagina/perineum

| | Procedure |
|---|---|
| <p>Category Zero (NOT exposure prone, no risk of bleed-back)</p> | Excision / diathermy of urethral caruncle |
| | Planning for insertion and removal of radioactive agent (brachytherapy) into vaginal tumour |
| | Insertion and removal of radioactive agent (brachytherapy) into vaginal tumour |
| | Insertion of a vaginal support pessary |
| | Punch biopsy of lesion of vagina |
| | Examination of vagina under anaesthetic (as sole procedure) |
| | Laparoscopic excision of recto-vaginal endometriosis including rectal shave, +/-ureterolysis |
| | Laparoscopic excision of recto-vaginal endometriosis including disc resection of rectum, +/-ureterolysis |
| | Laparoscopic excision of recto-vaginal endometriosis including bowel resection (including formation of stoma) +/- hysterectomy, +/-ureterolysis |

Vulva/Labia

| EPP Category | Procedure |
|--|---|
| Category 1 (Lowest risk of bleed-back) | Excision of excess labial tissue |
| | Repair of labial tears |
| | Excision of lesion of vulva |
| Category 2 (Intermediate risk of bleed-back) | NONE IDENTIFIED |
| Category 3 (Higher risk of bleed-back) | Excision of Bartholin gland |
| | Marsupialisation of Bartholin gland |
| | Simple vulvectomy |
| | Radical vulvectomy (including block dissection of inguinal gland) |
| | Block dissection of inguinal gland in isolation |
| | Abdominal radical/simple trachelectomy [‡] |
| | Vaginal radical/simple trachelectomy [‡] |
| [‡] If laparoscopic or robotic, then level 0. | |

| Category Zero (NOT exposure prone, no risk of bleed-back) | Procedure |
|---|---------------------------|
| | Biopsy of lesion of vulva |

Uterus/Adnexa

| EPP Category | Procedure |
|---|---|
| Category 1 (Lowest risk of bleed-back) | NONE IDENTIFIED |
| Category 2 (Intermediate risk of bleed-back) | NONE IDENTIFIED |
| Category 3 (Higher risk of bleed-back) | Radical hysterectomy and lymphadenectomy (Wertheim's) [‡] |
| | Total abdominal hysterectomy [‡] |
| | Subtotal abdominal hysterectomy [‡] |
| | Hysterectomy and removal of uterine adnexa [‡] |
| | Vaginal hysterectomy (including laparoscopically assisted) |
| | Hysterectomy and removal of uterine adnexa for ovarian malignancy |
| | Open myomectomy [‡] |
| | Plastic reconstruction of uterus [‡] |
| | Bilateral oophorectomy and salpingectomy (in isolation) [‡] |
| | Unilateral oophorectomy and salpingectomy (in isolation) [‡] |
| | Removal of products of conception from fallopian tube (ectopic pregnancy) [‡] |
| | Ovarian cystectomy (not included in other procedures) [‡] |
| | Block dissection of pelvic lymph nodes (not included in other procedures and not including inguinal gland block dissection in vulva/labia section) [‡] |
| | Total exenteration of pelvis [‡] |
| | Anterior exenteration of pelvis [‡] |
| | Posterior exenteration of pelvis [‡] |
| | Radical trachelectomy including laparoscopic and removal of lymph nodes +/- ureterolysis [‡] |
| Vaginal hysterectomy with laparoscopic assistance +/- ureterolysis | |
| Vaginal hysterectomy including salpingo-oophorectomy (including laparoscopically assisted) +/- ureterolysis | |
| ‡ If laparoscopic or robotic, then level 0 | |

Turn overleaf for non-EPPs within uterus/adnexa

| | Procedure |
|---|---|
| <p>Category Zero (NOT exposure prone, no risk of bleed-back)</p> | Therapeutic endoscopic operations on uterus (including endometrial ablation), TCRF |
| | Cone biopsy performed with a loop or laser* |
| | Hysteroscopy with/without D&C, biopsy including polypectomy |
| | Suction TOP |
| | Medical TOP |
| | ERPC |
| | Dilation & Curettage (D&C) |
| | Dilation and evacuation (D & E) |
| | Endometrial biopsy or aspiration |
| | Laparoscopy techniques (including e.g. puncture of ovarian cysts, +/- biopsy, minor endometriosis) |
| | Laparoscopic and therapeutic procedures including laser diathermy and destruction (for example, endometriosis, adhesiolysis, tubal surgery and solid tumours) |
| | Laparoscopic subtotal hysterectomy (+/- oophorectomy) +/- ureterolysis |
| | Robot assisted laparoscopic subtotal hysterectomy (+/- oophorectomy) |
| | Laparoscopic total hysterectomy (+/- oophorectomy) +/- ureterolysis |
| | Robot assisted laparoscopic total hysterectomy (+/- oophorectomy) |
| | Introduction of a coil |
| | Laparoscopic excision of endometriosis, +/-ureterolysis |
| | Impedance controlled bipolar radiofrequency ablation for menorrhagia (including hysteroscopy) |
| | Hysteroscopy with resection of fibroids |
| | Hysterosalpingo contrast echo sonography |
| | Hydrotubation of fallopian tubes |
| | Laparoscopic ovarian drilling |
| | Microwave endometrial ablation (including hysteroscopy) |
| | Myolysis of uterine fibroids |
| Magnetic resonance image-guided focused ultrasound for ablation of uterine fibroids | |

*Cone biopsy performed with a loop or laser would not, in itself, be classified as exposure prone, but if local anaesthetic were administered to the cervix other than under direct vision and with fingers in the vagina the procedure would become exposure prone. Performing cone biopsies with a knife (and with the necessary suturing of the cervix) would constitute an exposure prone procedure.

Suspension

| EPP Category | Procedure |
|--|---|
| Category 1 (Lowest risk of bleed-back) | NONE IDENTIFIED |
| Category 2 (Intermediate risk of bleed-back) | NONE IDENTIFIED |
| Category 3 (Higher risk of bleed-back) | Combined abdominal and vaginal operations to support outlet of female bladder |
| | Suprapubic sling operation [‡] |
| | Retropubic suspension of neck of Bladder/ MMK corporal suspension |
| | Vaginal operations to support outlet of female bladder |
| | Ventro-suspension of uterus [‡] |
| | T.V. [tension-free vaginal] tape - Anterior/ posterior and unilateral |
| | Uterosacral fixation [‡] |
| | Iliococcygeus fixation |
| | Sacropexy [‡] |
| | Sacrocolpopexy[‡] |
| | Sacrocervicopexy[‡] |
| | Sacrohysteroplexy [‡] |
| | Sub-total hysterectomy with sacrocervicalplexy [‡] |
| | Vaginal mesh kits for prolapse |
| Retro-pubic mid-urethral tape | |
| Revision combined abdominal and vaginal operations to support outlet of female bladder (including sling procedures and cystoscopy) | |
| Revision retropubic suspension of neck of bladder (including colposuspension and cystoscopy) | |
| ‡ If laparoscopic or robotic, then level 0 | |

Turn overleaf for non-EPPs within suspension

| | |
|---|---|
| Category Zero (NOT exposure prone, no risk of bleed-back) | Procedure |
| | Needle suspension of bladder neck (including cystoscopy) |
| | Therapeutic injection into bladder neck for treatment of stress incontinence (peri-urethral bulking agents) (including cystoscopy) |
| | Insertion of suburethral tape sling (for example, TOT or TVT) +/- administration of local anaesthetic by operating surgeon (including cystoscopy) |

Peritoneum

| EPP Category | Procedure |
|---|---|
| Category 1 (Lowest risk of bleed-back) | NONE IDENTIFIED |
| Category 2 (Intermediate risk of bleed-back) | NONE IDENTIFIED |
| Category 3 (Higher risk of bleed-back) | Laparotomy [‡] |
| | Laparotomy for post-operative haemorrhage [‡] |
| | Laparotomy and repair of multiple visceral trauma [‡] |
| | Open drainage of subphrenic abscess [‡] |
| | Excision of retroperitoneal tumour [‡] |
| | Biopsy of retroperitoneal tumour [‡] |
| | Presacral tumour – excision and removal [‡] |
| | Operations on omentum [‡] |
| ‡ If laparoscopic or robotic, then level 0 | |
| Category Zero (NOT exposure prone, no risk of bleed-back) | Procedure |
| | Image guided drainage |
| | Laparoscopy including biopsy and adhesiolysis |
| | Paracentesis abdominis for ascites Image guided drainage of pelvic abscess |

Bladder

| EPP Category | Procedure |
|--|--|
| Category 1 (Lowest risk of bleed-back) | Vaginal removal of mesh – simple |
| Category 2 (Intermediate risk of bleed-back) | Suprapubic sling operation |
| Category 3 (Higher risk of bleed-back) | Total cystectomy (with construction of intestinal conduit or bladder) ¥ |
| | Closure of cystostomy¥ |
| | Partial cystectomy¥ |
| | Repair of bladder¥ |
| | Repair of cutaneous vesical fistula |
| | Excision of lesion of bladder¥ |
| | Combined abdominal and vaginal operations to support outlet of female bladder¥ |
| | Retropubic suspension of neck of bladder¥ |
| | Vaginal operations to support outlet of female bladder |
| | Repair of vesico-vaginal fistula |
| | Incisional hernia repair¥ |
| | Repair of urethra and reimplantation¥ |
| | Urethrolysis¥ |
| | Excision of urethral diverticulum |
| | Urethral reconstruction |
| | Vaginal removal of mesh – complex |
| | Abdominal removal of mesh¥ |
| | Excision of deep lesions¥ |
| Simple incision mid-urethral tape | |
| Transopturater tape | |
| Mediourethral tape | |
| Insertion of an artificial urinary sphincter | |
| ¥ If laparoscopic or robotic, then level 0 | |

Turn overleaf for non-EPPs within bladder

| | |
|---|--|
| Category Zero (NOT exposure prone, no risk of bleed-back) | Procedure |
| | Diagnostic endoscopic examination of bladder (including any biopsy/excision) |
| | Urodynamic studies/ urodynamic assessment |
| | Dilatation of outlet of female bladder (with cystoscopy) |
| | Excision of superficial lesions |
| | Cystoscopy and urethral bulking |
| | Intradetrosal Botox installation |
| | Intravesical Botox installation |
| Abdominal wall pain blocks | |

Reproductive

| EPP Category | Procedure |
|--|----------------------------|
| Category 1 (Lowest risk of bleed-back) | Testicular biopsy |
| | Micro-TESA |
| | Micro-MESA |
| Category 2 (Intermediate risk of bleed-back) | NONE IDENTIFIED |
| Category 3 (Higher risk of bleed-back) | Tubal surgery [‡] |
| ‡ If laparoscopic or robotic, then level 0 | |

| | Procedure |
|---|---|
| Category Zero (NOT exposure prone, no risk of bleed-back) | Vaginal egg collection (provided fingers remain visible at all times when sharp instruments are in use) |
| | GIFT and ZIFT |
| | Embryo transfer |
| | Transmyometrial |
| | Transcervical |
| | Handling of embryo |
| | ICSI |
| | Embryo biopsy |
| | HYCOST/HSG/ultrasound |
| | Transuterine techniques |
| | Selective salpingograph |
| | Selective salpingscopy |
| | Myosure - removal of polyp/fibroid |
| | Surgical sperm retrieval |
| Percutaneous epididymal sperm aspiration (PESA) | |

Foetal Medicine

| EPP Category | Procedure |
|--|--|
| Category 1 (Lowest risk of bleed-back) | Radiowave Interstitial Thermal Ablation (RITA) |
| | Other drainage/shunts |
| Category 2 (Intermediate risk of bleed-back) | NONE IDENTIFIED |
| Category 3 (Higher risk of bleed-back) | Open foetal surgery |

| | Procedure |
|---|---|
| Category Zero (NOT exposure prone, no risk of bleed-back) | Feticide |
| | Cordocentesis/Foetal blood sampling |
| | Amniocentesis |
| | Chorionic villus sampling: transabdominal and transcervical |
| | Amniodrainage or other foetal procedures or shunts |
| | Fetoscopy and procedures |
| | Fetoscopy (laser ablation and plug) |

Contraception

| EPP Category | Procedure |
|--|--|
| Category 1 (Lowest risk of bleed-back) | NONE IDENTIFIED |
| Category 2 (Intermediate risk of bleed-back) | NONE IDENTIFIED |
| Category 3 (Higher risk of bleed-back) | Removal of implants (subcutaneous) – complex |

| Category Zero (NOT exposure prone, no risk of bleed-back) | Procedure |
|---|--|
| | Fitting intrauterine contraceptive devices |
| | Surgical insertion of depot contraceptive implants/devices |
| | Sterilisation - laparoscopic |
| | ESSURE insertion |
| Removal of implants (subcutaneous) – simple | |

Obstetric EPP categorisation

Antenatal

| EPP Category | Procedure |
|--|--|
| Category 1 (Lowest risk of bleed-back) | Removal of cerclage from cervix |
| | Reversal of female circumcision if not sutured |
| Category 2 (Intermediate risk of bleed-back) | NONE IDENTIFIED |
| Category 3 (Higher risk of bleed-back) | Cerclage of cervix abdominal |
| | Reversal of female circumcision if sutured |
| | Cerclage of cervix vagina |
| | Complicated removal of cervical cerclage |

| | Procedure |
|---|---------------------------|
| Category Zero (NOT exposure prone, no risk of bleed-back) | External cephalic version |

Intrapartum

| EPP Category | Procedure |
|--|---|
| Category 1 (Lowest risk of bleed-back) | Infiltration of perineum with local anaesthetic |
| Category 2 (Intermediate risk of bleed-back) | <i>NONE IDENTIFIED</i> |
| Category 3 (Higher risk of bleed-back) | Attachment of foetal scalp electrode |
| | Infiltration of pudendal block |
| | Caesarean delivery |
| | Caesarean hysterectomy |
| | Hysterotomy |

| | Procedure |
|---|--|
| Category Zero (NOT exposure prone, no risk of bleed-back) | Artificial rupture of membranes using plastic amnihook |
| | Foetal blood sampling performed using amnioscope |
| | Operative vaginal delivery |
| | Rotational vaginal delivery |
| | Breech delivery |
| | Cutting an episiotomy with scissors |
| | Normal delivery |

Postpartum

| EPP Category | Procedure |
|---|---|
| Category 1 (Lowest risk of bleed-back) | Repairing a first degree‡ tear/episiotomy |
| Category 2 (Intermediate risk of bleed-back) | NONE IDENTIFIED |
| Category 3 (Higher risk of bleed-back) | Repairing a second, third or fourth degree‡ tear/episiotomy |
| | Immediate repair/reconstruction of cervix |
| | Repair of labial tears |
| | Uterus compression suture (e.g. B-Lynch) |
| | Removal of abdominal packs¶ |
| ‡ As defined in Royal College of Obstetricians and Gynaecologists Guideline No.23 (June 2004) Methods and Materials used in Perineal Repair ¶ If vaginally, then category 0 | |

| | Procedure |
|---|---|
| Category Zero (NOT exposure prone, no risk of bleed-back) | Curettage of delivered uterus |
| | Repositioning of inverted uterus |
| | Manual removal of placenta |
| | Vaginal / Rousch balloon |
| | Foetal blood sampling by cordocentesis (including ultrasound) |