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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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Public Health England

Wellington House

133-155 Waterloo Road

London SE1 8UG

Tel: 020 7654 8000

www.gov.uk/phe

Twitter: [@PHE_uk](https://twitter.com/PHE_uk)

Facebook: www.facebook.com/PublicHealthEngland



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- Ms Kay Francis, HIV Lead Midwife and UKAP midwifery expert, North Middlesex University Hospital NHS Trust
- Mr Jonathan Frappell, Consultant Gynaecologist, Plymouth Hospitals NHS Trust
- Ms Kate Harding, Consultant Obstetrician, Guy's and St Thomas' NHS Foundation Trust
- Mr Joe Llahi, Consultant Obstetrician & Gynaecologist, North Middlesex University Hospital NHS Trust
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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

<p>Category Zero (NOT exposure prone, no risk of bleed-back)</p>	<p>Procedure</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

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

Category Zero (NOT exposure prone, no risk of bleed-back)	Procedure
	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

	Procedure
Category Zero (NOT exposure prone, no risk of bleed-back)	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

Category Zero (NOT exposure prone, no risk of bleed-back)	Procedure
	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)