



Do we need a G&S pre op??

Christine Ellis

Transfusion Practitioner

**Frimley Health – Wexham Park
Hospital**

History

- At WPH we always had 2 samples prior to most procedures – one taken at pre admission, 2nd on admission. Blood was then issued according to MSBOS
- EI decreased the need to issue blood pre op
- New surgical procedures have also decreased the need for blood during surgery
- Now the MSBOS has a small number of procedures listed, everyone else would have 2 G&S's sent

Maximum Surgical Blood Ordering Schedule	FPH	HWPH
AAA elective repair	2 RC	--
AP resection – OPEN	2 RC	--
C-Section: Placenta accreta/percreta / major placenta previa	2 RC	4 RC
C-Section: Placenta previa anterior	2 RC	4 RC
C-Section: placenta previa posterior	2 RC	2 RC
Gynae de-bulk / Pelvic exenteration	2 RC	--
Hip revision	--	2 RC HW
Open prostatectomy	2 RC	--
Splenectomy	2 RC	2 RC

- As surgical processes have changed, the number of patients requiring blood during surgeries has drastically reduced.
- Therefore the next step was do we need a G&S sample sent?
- When RBH joined BSPS they had a policy showing when G&S were required and if they were how many. BSPS decided to try and implement this across all sites.



How we went about this



- Previously at WPH the surgeons came to our HTC and asked if they could stop taking G&S samples for laparoscopic cholecystectomy – they did the research and found that in 2 years, only 1 patient had blood transfused but that was days after the operation. This was approved.
- Pre assessment and surgical leads were approached
- Once we explained our reasoning, we left it up to them to decide what they wanted to do
- We helped with evidence if they asked for it



	<u>MSBOS (Maximum Blood Ordering Schedule) CROSSMATCH</u>	<u>High risk of bleeding during surgery Historical PLUS current G&S sample</u>	<u>Medium risk of bleeding during surgery Historical G&S sample only</u>	<u>Low risk of bleeding during surgery G&S not required</u>
General Surgery	Laparoscopic splenectomy (2 x RBC)	Emergency laparotomy Lap /Open Abdomino-perineal resection Any Colectomy – open/lap Anterior/ low anterior resection Open bowel resection Abdomino-/lap rectopexy Hartmanns/ Reversal of Hartmanns Gastrectomy Open splenectomy	All laparoscopic surgery not listed in major Appendicectomy Open cholecystectomy /bile duct surgery Colostomy/ileostomy reversal or revision Laparoscopic bowel resection Laparoscopic hiatal surgery Lap abdominal wall hernia	Colonoscopy Delormes Examination Under Anaesthesia (EUA) Oesophagogastro Duodenoscopy (OGD) Sigmoidoscopy Haemorrhoidectomy Perianal abscess Open hernia repair
Urology	Open renal surgery (2 x RBC)	All laparoscopic renal /adrenal surgery All robotic surgery Urethroplasty Open prostatectomy	PCNL TURBT TURP Prostate aquablation	Cystoscopy Penoscrotal surgery Prostate Biopsies Ureteroscopy
Orthopaedics	Revision Hip replacement (2 x RBC Heatherwood only)	Revision hip replacement (FPH) Revision surgery to knee or spine Dynamic hip screw conversion to THR Posterior thoracolumbar fusion	Primary arthroplasty hip, knee & shoulder, elbow Cervical / Lumbar spinal fusion Decompression spinal surgery Discectomy/ Microdiscectomy	MUA Removal of (minor) metal work Spinal Injection Arthroscopy Foot Surgery

Gynaecology		Abdominal procedures involving laparotomy Myomectomy - open or laparoscopic All laparoscopic surgery with an increased risk of blood loss (eg ectopic pregnancy with free fluid in pelvis).	All laparoscopic surgery not listed in major Surgical management of miscarriage (SMM) Colposuspension Ovarian Cystectomy TCRF Total abdominal or vaginal hysterectomy-open or laparoscopic Bilateral Salpingo-Oophorectomy (BSO)	Colposcopy Hysteroscopy Mirena Insertion TCRE Vulval biopsy
Obstetrics	LSCS for placenta praevia (2 RBC) LSCS with multiple or major risk factors for PPH: 2 Units (Should be identified as needing XM by booking Obstetrician)	LSCS with additional risk factors for PPH (eg twins, 4 th LSCS, fibroids, emergency LSCS in pregnancy)	LSCS without additional risk factors for PPH	
ENT			Major H&N surgery (rarely done at FPH by Miss Pitkin)	Tonsillectomy/ adenoidectomy Sinus surgery Parotidectomy Septo-/ rhinoplasty Thyroid/parathyroid surgery Ear surgery including mastoidectomy Tongue base/ neck node biopsy Panendoscopy /pharyngoscopy Submandibular excision

Plastics			Diep Lat Dorsi	Abscess drainage ANC Benign Breast Surgery Carpal Tunnel Decompression Excision skin lesion Flap and reconstructive surgery Flexor tendon repairs mammoplasty Mastectomy MCP joint Arthroplasty Palmar Fasciectomy Trapeziectomy Wide local excision
Vascular	Open AAA elective repair (2 x RBC FPH)	All aortic surgery Carotid endarterectomy Vascular bypass surgery Embolectomy surgery Endovascular aortic repair (EVAR, FEVAR, TEVAR) Major joint amputations		Porto catheter insertions Digit amputation Varicose Veins
Breast			Mastectomy Axillary Clearance Skin sparing mastectomy, implant recon Subcutaneous Mastectomy, implant recon Insertion Of Prosthesis For Breast	Wide local excision Abscess drainage

WPH Pre Assessment

- Taken it one step further
- They have used NICE guideline NG45 (April 2016) Routine preoperative tests for elective surgery to come up with a very comprehensive guide for all surgical procedures



2. Recommendations for specific surgery and ASA grades: colour traffic light tables

ASA Grades (American Society of Anesthesiologists Physical Status Classification System)	
ASA 1	A normal healthy patient
ASA 2	A patient with mild systemic disease
ASA 3	A patient with severe systemic disease
ASA 4	A patient with severe systemic disease that is a constant threat to life

Test	ASA 1	ASA 2	ASA 3 or ASA 4
Minor surgery (examples: excising skin lesion; draining breast abscess)			
Full blood count	Not routinely	Not routinely	Not routinely
Haemostasis	Not routinely	Not routinely	Not routinely
Kidney function	Not routinely	Not routinely	Consider in people at risk of AKI ¹
ECG	Not routinely	Not routinely	Consider if no ECG results available from past 12 months
Lung function/arterial blood gas	Not routinely	Not routinely	Not routinely
Intermediate surgery (examples: primary repair of inguinal hernia; excising varicose veins in the leg; tonsillectomy or adenotonsillectomy; knee arthroscopy)			
Full blood count	Not routinely	Not routinely	Consider for people with cardiovascular or renal disease if any symptoms not recently investigated
Haemostasis	Not routinely	Not routinely	Consider in people with chronic liver disease <ul style="list-style-type: none"> • If people taking anticoagulants need modification of their treatment regimen, make an individualised plan in line with local guidance • If clotting status needs to be tested before surgery (depending on local guidance) use point-of-care testing²
Kidney function	Not routinely	Consider in people at risk of AKI ¹	Yes
ECG	Not routinely	Consider for people with cardiovascular, renal or diabetes comorbidities	Yes
Lung function/arterial blood gas	Not routinely	Not routinely	Consider seeking advice from a senior anaesthetist as soon as possible after assessment for people who are ASA grade 3 or 4 due to known or suspected respiratory disease

Major or complex surgery (examples: total abdominal hysterectomy; endoscopic resection of prostate; lumbar discectomy; thyroidectomy; total joint replacement; lung operations; colonic resection; radical neck dissection)

Full blood count	Yes	Yes	Yes
Haemostasis	Not routinely	Not routinely	Consider in people with chronic liver disease <ul style="list-style-type: none"> • If people taking anticoagulants need modification of their treatment regimen, make an individualised plan in line with local guidance • If clotting status needs to be tested before surgery (depending on local guidance) use point of care testing²
Kidney function	Consider in people at risk of AKI ¹	Yes	Yes
ECG	Consider for people aged over 65 if no ECG results available from past 12 months	Yes	Yes
Lung function/ arterial blood gas	Not routinely	Not routinely	Consider seeking advice from a senior anaesthetist as soon as possible after assessment for people who are ASA grade 3 or 4 due to known or suspected respiratory disease

AKI, acute kidney injury

¹See recommendation 1.1.8 of the NICE guideline on [acute kidney injury](#)

²Note that currently the effects of direct oral anticoagulants (DOACs) cannot be measured by routine testing.