

Table 1 Plastic surgeon reported closure of abdominal secondary defect (n = 83)

Phase of closure	Product	N (%)
Rectus sheath mesh	No mesh used	27 (34)
	Mesh (type not reported)	15 (18)
	Prolene mesh	4 (5)
	Ultrapro	3 (4)
	Vipro	2 (2)
	Parietax	1 (1)
	Vicryl	1 (1)
	Missing	30 (36)
Closure of rectus sheath	Nylon	37 (45)
	Polydioxanone	6 (7)
	Barbed suture	4 (5)
	Vicryl	2 (2)
	Ethibond	1 (1)
	Prolene	1 (1)
	Missing	32 (39)
Closure of Scarpa's fascia	Polydioxanone	23 (28)
	Vicryl	14 (17)
	Monocryl	8 (10)
	Barbed suture	6 (7)
	Vicryl	2 (2)
	Missing	21 (25)
Deep dermal closure	Monocryl	34 (41)
	Vicryl	10 (12)
	Barbed suture	7 (8)
	Polydioxanone	3 (4)
	Insorb	3 (4)
	Missing	26 (31)
Skin closure	Monocryl	46 (55)
	Polydioxanone	3 (4)
	Barbed suture	2 (2)
	Vicryl	1 (1)

	Staples	1 (1)
	Missing	30 (36)
Wound dressing	Tissue glue	9 (11)
	Steristrips	8 (10)
	Tissue glue and dressing	7 (8)
	Prineo	4 (5)
	Missing	55 (66)

Data derived from free text responses. Missing data documented where no reference to that part of closure was mentioned in the response.

Table 2 Anaesthetists reported preferences for postoperative analgesia (n/N%). Multiple responses allowed.

Analgesic	Regular	PRN	No	Missing
Paracetamol	67 (94)	0 (0)	2 (3)	3 (3)
Patient controlled analgesia	40 (56)	10 (14)	19 (27)	3 (3)
NSAID (e.g. ibuprofen)	34 (48)	7 (10)	28 (39)	3 (3)
Oral morphine	16 (23)	25 (35)	28 (39)	3 (3)
Gabapentin	13 (18)	2 (3)	54 (76)	3 (3)
Compound analgesic (e.g. co-codamol)	5 (7)	7 (10)	57 (80)	3 (3)
Aspirin	1 (1)	0 (0)	68 (96)	3 (3)
COX-2 Inhibitor (e.g. Celecoxib)	1 (1)	0 (0)	68 (96)	3 (3)

NSAID, non-steroidal anti-inflammatory drug; COX, cyclooxygenase

Table 3 Comparison of optiFLAPP responses with ERAS protocol and ABS/BAPRAS guidance

Item	ERAS Society Recommendation	ABS / BAPRAS Recommendations	optiFLAPP experience
Preadmission information, education, and counseling	Patients should receive detailed preoperative counseling.	Patients should receive information in a format and level of detail that meets their individual needs.	In addition to clinic consultation, paper-based information widely used but limited use of electronic resources.
Preadmission optimization	For daily smokers, 1 month of abstinence before surgery is beneficial. For patients who are obese, weight reduction to achieve a BMI ≤ 30 kg/m ² before surgery is beneficial. For alcohol abusers, 1 month of abstinence before surgery is beneficial. For appropriate groups, referral should be made to resources for these behavior changes.	All women should undergo a pre-operative assessment process prior to admission.	All patients attend a preadmission clinic to prepare them for surgery. BMI and smoking not examined by survey.
Perforator flap planning	If preoperative perforator mapping is required, CTA is recommended.	No specific guidance.	Preoperative imaging is performed in 92% patients (CTA 67%)
Perioperative fasting	Preoperative fasting should be minimized and patients should be allowed to drink clear fluids up to 2 hour before surgery.	No specific guidance.	Most patients are encouraged to drink up to 2 hours before surgery.
Preoperative carbohydrate loading	Preoperative maltodextrin-based drinks should be given to patients 2 hour before surgery.	No specific guidance.	Only 13% given a specific oral fluid prescription for carbohydrate loading.
Venous thromboembolism prophylaxis	Patients should be assessed for venous thromboembolism risk. Unless contraindicated, and balanced by the risk of bleeding, patients at a higher risk should	LMWH according to risk factors 12 hours prior to surgery (night before operation). TEDS on admission. Leave flowtrons on for first 24 hours post operation. Encourage	Most patients receive combined VTE prophylaxis of LMWH and TEDS. Few continue VTE prophylaxis beyond the admission.

	<p>receive low-molecular-weight heparin or unfractionated heparin until ambulatory or discharged. Mechanical methods should be added.</p>	<p>ankle dorsi / plantar flexion after flowtrons removed.</p> <p>No guidelines for tamoxifen</p>	<p>Most surgeons stop tamoxifen</p>
Antimicrobial prophylaxis ^[1] _{SEP}	<p>Chlorhexidine skin preparation should be performed and intravenous antibiotics covering common skin organisms should be given within 1 hour of incision.</p>	<p>2% chlorhexidine with 70% isopropyl alcohol with tint provides the best skin decontamination. A single intravenous dose of prophylactic antibiotic given on induction of anaesthesia. If the operation lasts longer than 4 hours or there is significant blood loss, a second dose may be indicated.</p>	<p>All patients receive induction antibiotics. 45% receive antibiotics beyond the procedure.</p>
Postoperative nausea and vomiting prophylaxis	<p>Women should receive preoperative and intraoperative medications to mitigate postoperative nausea and vomiting.</p>	<p>Propofol infusions, 5HT3 antagonists and a multimodal approach to minimize retching.</p>	<p>Not assessed.</p>
Preoperative and intraoperative analgesia	<p>Women should receive multimodal analgesia to mitigate pain.</p>	<p>No specific guidance.</p>	<p>30% anaesthetists report prescribing preoperative analgesia</p>
Standard anesthetic protocol	<p>General anesthesia with TIVA is recommended.</p>	<p>No specific guidance.</p>	<p>39% anaesthetists use TIVA; 37% use volatile anesthesia</p>
Preventing intraoperative hypothermia ^[1] _{SEP}	<p>Preoperative and intraoperative measures, such as forced air, to prevent hypothermia should be instituted. Temperature monitoring is required to ensure the patient's body temperature is maintained above 36°C.</p>	<p>Patient temperature should be carefully monitored. No specific guidance on warming.</p>	<p>A range of measures were reported to prevent hypothermia. Large variation in preoperative warming and forced air warming devices.</p>

Perioperative intravenous fluid management ^[1] _[SEP]	<p>Over resuscitation or under resuscitation of fluids should be avoided and water and electrolyte balance should be maintained. Goal-directed therapy is a useful method of achieving these goals.</p> <p>Balanced crystalloid solutions, rather than saline, is recommended.</p> <p>Vasopressors are recommended to support fluid management and do not negatively affect free flaps.</p>	Fluid balance must be carefully monitored and patients kept adequately hydrated.	<p>Goal directed therapy not widely used.</p> <p>Hartmann's solution was the preferred solution for maintenance and fluid boluses.</p> <p>84% anaesthetists reported always or sometimes using vasopressors.</p>
Postoperative analgesia ^[1] _[SEP]	Multimodal postoperative pain management regimens are opioid-sparing and should be used.	A multi-modal approach to analgesia should be considered – options include patient controlled analgesia, regional techniques, local anesthetic wound infiltration and a combination of opioid and non-opioid analgesics.	Opioid patient controlled analgesia widely used. Low use of NSAIDs. Approximately half of clinicians used regional blocks.
Early feeding	Patients should be encouraged to take fluids and food orally as soon as possible, preferably within 24 hour after surgery.	No specific guidance.	Not assessed.
Postoperative flap monitoring	Flap monitoring within the first 72 hour should occur frequently. Clinical evaluation is sufficient for monitoring, with implantable Doppler devices recommended in cases of buried flaps.	Monitor flap every 30 minutes for 24 hours and hourly thereafter.	Range of flap monitoring protocols. Generally continue for 3 days and surface Doppler used as an adjunct.
Postoperative wound management	For incisional closure, conventional sutures are recommended. Complex wounds following skin necrosis are treatable with débridement and negative-pressure wound therapy.	No specific guidance other than patients should be monitored for complications.	Large variation in abdominal wound closure techniques including the use of barbed sutures and closure devices.

Early mobilization	Patients should be mobilized within the first 24 hours after surgery.	No specific guidance.	Not assessed.
Post discharge home support and physiotherapy	Early physiotherapy, supervised exercise programs, and other supportive care initiatives should be instituted after	Patients should have early access to specialist physiotherapy.	Not assessed.
Patient satisfaction	No specific guidance.	Patients' satisfaction with breast reconstruction outcome should be measured using standardized assessment tools.	Only 30% surgeons report collecting patient reported outcomes

CTA, computed tomography angiography; VTE, venous thromboembolism; LMWH, low molecular weight heparin; TEDS, thromboembolic deterrent stockings; ERAS, enhanced recovery after surgery; ABS, Association of Breast Surgeons; BAPRAS, British Association of Plastic, Reconstructive and Aesthetic Surgeons; TIVA, total intravenous anesthesia