

Buddy operating in gynaecological endoscopy: what should this model of surgical practice look like?

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ABSTRACT

"Buddy operating" is a subtype of dual operating described in the Clark model, where two surgeons of comparable proficiency collaborate during complex procedures. Potential benefits include improved surgical efficacy and safety, shared intraoperative decision making, enhanced skill development, and improved surgeon wellbeing. However, implementation must be justified given resource constraints and potential impacts on surgical training. We propose that buddy operating should be selectively applied to clearly defined complex cases, supported by governance frameworks, structured protocols, and outcome monitoring. Importantly, buddy operating must be distinguished from supervisory training. Future research should evaluate its effects on clinical outcomes, cost-effectiveness, surgeon health, and access to training opportunities.

Keywords: Gynaecology, laparoscopic surgery, mentorship, patient safety, surgical training, workforce resilience

Introduction

We have made the case for dual operating in our previous editorial in Facts, Views and Vision in ObGyn.¹ Whether supervisory (surgical trainer to surgical trainee), buddy (surgeons of similar proficiency within a specialty) or inter-specialty (surgical collaboration across specialities) as defined in the Clark model of dual operating. This model defines three subtypes based on the relationship between surgeons and the purpose of their collaboration: (1) supervisory operating, where a more experienced surgeon supports and guides a less experienced colleague within a training paradigm; (2) buddy operating, referring to collaboration between surgeons of equivalent proficiency within the same specialty, typically undertaken for complex cases; (3) inter-specialty operating, involving surgeons from different specialties working together in procedures

requiring multi-disciplinary expertise, each surgeon typically undertaking distinct components of the same procedure. It is hoped that using this framework will enable a clearer distinction between training, collaborative practice, and procedural task sharing within dual operating.

In this follow-on editorial we will concentrate upon the dual operating subtype of buddy operating. Potential benefits of operating with a colleague of equivalent competency include improved clinical outcomes, namely efficacy and safety, development of surgical skills and enhanced surgeon wellbeing where assistance is more precise and intraoperative decision making is shared. However, can health services afford this "luxury" of two senior surgeons operating in tandem and what happens to the access and quality of surgical training for junior doctors?

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So we need to utilise the educational and safety benefits of buddy consultant operating but implementation must have a clear rationale. The place of dual inter-speciality operating is clear for the most part e.g. advanced laparoscopic surgery for endometriosis with bowel, urinary tract or thoracic involvement.² In the UK, the British Society for Gynaecological Endoscopy (BSGE) have established BSGE Endometriosis Centres,³ and a mandated requirement of these centres is to have named bowel and urological surgeons who provide the necessary inter-speciality surgical support. However, no structures to realise “buddy operating” are well defined. It seems sensible to avoid a “one size fits all” approach but rather to tailor implementation to local needs and available resources such as theatre operating capacity, workforce availability and funding.

One approach is to identify and define surgical cases that are complex. For example, total laparoscopic hysterectomy (TLH) is a common operation within the proficiencies of most gynaecologists with an interest in endoscopic surgery. However, cases of TLH can be more challenging due to patient factors such as previous abdominal surgery, past infection and obesity. Thus, it seems that a framework to recommend when buddy operating should be considered could be helpful. We have proposed operations that should be considered complex and be aided by operating with a “buddy” (Tables 1 and 2). We should aim to establish consensus across our surgical discipline. This would reassure those managing scarce resources within health services that the expense of allowing two trained senior surgeons to operate is justified, restricted and is cost-saving through safer and more expeditious surgery; better efficacy minimising the need for re-intervention and enhanced safety, reducing morbidity and costs from prolonged use of health services, re-interventions and legal ramifications.

Defining the operations necessitating operating with a buddy is one thing, but we must also recognise that a serious complication can affect a surgeon’s confidence and performance. Buddy operating can be an invaluable resource after a serious surgical complication, especially when the same surgical procedure is to be undertaken. Even the most seasoned surgeon’s surgical “flow” can be affected; stress can lead to uncharacteristically tentative surgical dissection leading to imprecise identification of surgical planes and resultant bleeding. Our usual surgical performance is compromised when our brains are “scrambled”. Operating with a trusted colleague, where

responsibility is shared, helps restore confidence while maintaining patient safety. Having two surgeons of similar proficiency allows double-checking of critical surgical steps thereby reducing the likelihood of technical errors and poor intraoperative decision making. Discussing adjustments in technique may allow for safer approaches in future cases. The main reason for advocating buddy operating after a surgical complication is for peer support but it can also be useful from a clinical governance perspective; individually demonstrating reflective practice and proactive risk reduction and institutionally following case reviews and liaison with patients’ and their families.

In some centres, typically high volume, tertiary centres or other better funded surgical units, structured buddy operating may be adopted more liberally facilitating mentorship, skill transfer, and shared intraoperative decision making. In contrast, other, maybe smaller units, may implement buddy operating more selectively for specified high risk cases (Tables 1 and 2). It is likely that successful implementation will necessitate flexibility that aligns with local service demands while maintaining the goals of buddy operating in terms surgical safety, and training.

It is important however, to recognise the inadequacies of current surgical training, especially the limited access and exposure to surgery. The wider acceptance of buddy operating will further deprive doctors in training (“junior doctors”/ “residents”) of experience, albeit trainee surgeons can still acquire valuable educational experience from observing the interactions between buddy surgeons. It is thus, of paramount importance that the defined Clark models of dual operating are adhered to. Buddy operating is not “supervisory” where one surgeon (the trainee) is less proficient than the other (the trainer) in the same specialty.¹ It is peer to peer operating of equally proficient surgeons within the same speciality for complex cases defined by the local surgical team, with reference to the suggest framework (Tables 1 and 2). Most examples provided are drawn from minimally invasive benign gynaecological surgery, where variability in complexity is common; however, the conceptual framework is not limited to this domain. During surgical training (Clark model: “supervisory”) then it doesn’t matter whether it is the conventional senior : junior training or the increasingly prevalent situation of peer : peer training that has been necessitated by inadequate surgical exposure during “junior/resident” training years.

Table 1. Complex gynaecological operating justifying buddy operating as defined by the Clark model.¹

Reason	Pathology
Significant adhesions/distorted anatomy anticipated	Deep endometriosis Large fibroid uterus Previous peritonitis (including pelvic abscess) Previous midline laparotomies Significant previous abdominal surgeries Congenital pelvic anomalies Other
Surgery that requires access to the retroperitoneal pelvic spaces	Lymph node dissection Deep endometriosis ¹ Other
Hysterectomy for large uterus	Adenomyosis/fibroids
Myomectomy for complex fibroids	Cervical/broad ligament/multiple fibroids/posterior location
BMI>35 ²	Obesity
Other (e.g. medical co-morbidities, repeat after failed surgery/revision surgery)	Anticoagulation, cardio-respiratory, mesh removal etc.
After a prior serious surgical complication ³	Not applicable

¹Clark model "inter-speciality"-surgeons with proficiency in different surgical specialties may be required.
²Laparoscopic.
³Especially if this has affected confidence but it should be recognised that some surgeons may lack insight and so impacts on "confidence" should not be the main driver to recommend buddy operating.
BMI: Body mass index.

Table 2. Complex obstetrical operating justifying buddy operating as defined by the Clark model.¹

Reason	Pathology
Significant adhesions/distorted anatomy anticipated	Three previous Caesarean sections Deep endometriosis Large fibroid uterus Previous peritonitis (including pelvic abscess) Previous midline laparotomies Significant previous abdominal surgeries Congenital pelvic anomalies Other
Anticipated peri-operative bleeding +/- other complications including need for hysterectomy	Placenta accreta spectrum
BMI >40	Morbid obesity
Fibroids distorting uterine anatomy and anticipated access/closure	Significant fibroids in lower segment
Other (e.g. medical co-morbidities; surgical complexities)	Anticoagulation, cardio-respiratory, previous complications at CS etc.
After a prior serious surgical complication ¹	Not applicable

¹Especially if this has affected confidence but it should be recognised that some surgeons may lack insight and so impacts on "confidence" should not be the main driver to recommend buddy operating.
BMI: Body mass index.

This is training time regardless of the stage of a surgeons career and should not be confused with true “buddy operating”.

We need robust quality assurance for the successful implementation of buddy operating in gynaecological surgery. Clear governance structures, defined roles for each surgeon, specification of operations meeting the thresholds for buddy operating, and documentation are essential to ensure accountability and maintain high standards of patient care. Institutions endorsing buddy operating should adopt protocols to ensure appropriate case selection, team briefing and postoperative outcome monitoring. Regular audit of operative time, complication rates, and training outcomes can help determine whether buddy operating delivers measurable benefits for patients and surgeons.

In our previous editorial on dual operating, we raised the concern that the boundaries of responsibility between surgeons may lack clarity.¹ Transparency regarding clinical responsibility is necessary and this should probably be decided locally so that it is appropriate for specific regional and national healthcare systems. We envisage that for most settings, buddy operating would involve joint operating where the surgeons not only share technical tasks and decision-making, but also intra-operative responsibility. Outside of the operation, the indication for surgery, acquisition of adequate informed consent and responsibility for post-operative management should reside with the named senior clinician who the patient is under, unless a team model of care is routinely adopted.

Research is needed to better define the clinical and educational value of buddy operating in gynaecology. Prospective studies comparing buddy vs. single operating across different procedure types and levels of complexity would provide important evidence regarding outcomes such as complication rates, surgical efficiency, learning curves, cost-effectiveness and surgeon physical as well as mental health. Differential uptake, implementation and impacts of buddy operating according to mode of surgery; open, laparoscopic and robotic, should be evaluated. Research should also explore the impact on

surgical training, particularly in minimally invasive and advanced pelvic surgery, where collaborative operating may accelerate skill acquisition. However, the potential detrimental effects of buddy operating, particularly around restrictions on exposure and capacity of those in training grades, need to be evaluated.

As minimally invasive gynaecology evolves, embedding a buddy operating model into contemporary gynaecological surgical practice may, and improve outcomes and workforce resilience. However, how best to do this needs to be determined. We call upon professional bodies to promote collaborative surgery, as defined within the Clark model, as a standard of care and contribute to developing consensus about how best to optimise the use of buddy operating.

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