Day case surgery: a modern view

For several decades day surgery clinicians have championed the invaluable contribution that can be made to the provision of elective surgical care. It is now acknowledged as high impact change number one: treat day surgery rather than inpatient surgery as the norm for elective surgery. However, the potential is much greater and ambulatory practice will be the vanguard for modernizing the delivery of all surgical services of the future. It has been described as crucial to the future of health care.

Theatre time is the NHS' most costly and therefore most precious resource. It is far more costly per unit time than a critical care bed and it is inconceivable that it should not be managed with the highest respect. External audit reports continue to highlight that the time allocated to surgery is underutilized. Some operating theatres have been identified by the National Audit Office as being used for as little as 11 hours per week. In fully equipped operating suites, procedures are performed that could be done far more efficiently in outpatient clinics or treatment rooms at a fraction of the cost. Clinicians and managers continue to be frustrated by late starts, delays between cases, and overall under-utilization of operating time.

Day surgery is the admission of selected patients to hospital for a planned surgical procedure, returning home on the same day. 'True day surgery' patients are day case patients who require full operating theatre facilities and/or a (regional/general) anaesthetic (Department of Health, 2002). Clinical focus is shifting from deconstructive and subsequent reconstructive surgery to interventional and the minimally invasive managements for complex and systemic diseases. Increasing numbers of procedures will be seen to naturally migrate from inpatient care to the day surgery baskets and trolleys.

The day surgery community embraces these challenges and has for several decades been promoting real solutions. This practical philosophy with proven clinical track record has attracted the robust support of many national agencies culminating in day surgery being acknowledged as high impact change number one – the organizational change that will generate greatest benefit to patients, clinicians and managers. After improved performance in the early 1990s, progress has slowed, generating frustrations within the speciality (Ralphs, 2003).

Moulding the future face of elective surgery

Reflecting on the evolution of surgery, life-threatening diseases have been managed by increasingly complex, costly and in their own right risky procedures. Subsequently it is identified that either little or no improvement can be demonstrated or the technique is superseded by interventional radiology, radiotherapy, minimally invasive procedures and medical management. One can learn from the changes in the management of breast cancer, the replacement of vascular surgical procedures with angioplasty and stenting, and the use of coiling for intracranial aneurysms. Newer techniques frequently lend themselves to day care provision. A current challenge is to build on innovations and extend the portfolio of efficacious procedures.

Science fiction predicts the clinician of the future healing by technology rather than brandishing a knife. In reflective moments, it is inconceivable that the future management of sophisticated total body diseases will be surgical. One must also acknowledge the unfeasibility of eliminating every diseased cell from a patient with a knife. Systemic disease requires systemic solutions that operate at sub-cellular level. Surgery will continue to be valued for securing diagnoses, reconstruction, and to address localized pathology and trauma. Current domains of surgical interest will be ceded to the new breed of 'minimal interventionalists' and radiology will have much to contribute.

As the the clinical workforce is modernized, the question must be asked 'Does it need to be a doctor who performs this task?' For some while we have seen 'lumps and bumps' removed by health-care professionals other than doctors. Recently highlighted was the successful development of a day surgery carpal tunnel programme, where the operator is not a doctor.

The day surgery culture

The patient comes first. All elements of day surgery design must be focused to provide the highest quality care in the slickest fashion possible at the patient's convenience. It should be acknowledged and embraced that UK health care is finally shifting from a secondary care command economy to a patient-driven demand economy.

Patients who attend the day surgery are not sick, they are just having an operation. They might have co-morbidities. Good liaison with general practice and effective preoperative assessment will ensure that chronic states are optimized before operations are scheduled. As the national preoperative assessment programme matures natural closer links will evolve with general practice. The time will come when preoperative evaluation will be

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completed before a patient's referral for surgery, thus eliminating those embarrassing occasions where patients are denied surgery because they are unfit.

The system should involve integrated multi-skilled teamwork, so there are never gaps in the team resulting in cancellations and a substandard service to patients. The caring team needs to be able to move with the patient as they progress along their care pathway. There is no place for divisions between the teams providing care across the care pathway. Safety netting and follow-up must also be part of the system to avoid burdening out of hours cover in the community. The team must be prepared to push the boundaries of current clinical practice. This includes challenging medical suitability criteria as well as embracing new operations.

The patient journey

At some point most of us will become patients, and would most likely object to unnecessary hospital visits, and investigations. It is salutary experience to plot a patient's journey from the first visit to his/her GP to completion of treatment. Waste and duplication can be quantified and eliminated. The challenge is to maximize the value of every visit a patient makes to hospital, thus reducing the total number of visits, and improving patient satisfaction with care.

The surgical assessment should be married to the pre-anaesthetic health check. If the referring GP has performed recent investigations, one should make use of them rather than repeating them. The consent to operation can be completed at the same visit or why not let the patient consider written information later at home? Does it need to be a doctor who 'consents' the patient?

Robust preoperative preparation will mean that on the day of surgery, there should be no surprises for surgeon or anaesthetist. Therefore the primary focus of clinician meeting patient will be to establish a trusting rapport. The natural flux of staff between operating theatres, admission and the recovery lounges ensures that the patient will not be greeted by a stranger at each step of the journey. On discharge from day surgery, they are equipped with medication to ensure analgesia and alleviate nausea and vomiting. Their carer will also be educated as to what to expect as the norm and who to contact for help and advice. This in turn will encourage the movement away from unnecessary follow-up appointments.

From the authors' own satisfaction surveys, patients hold their ambulatory care in the highest regard, with day surgery units attracting very few complaints.

The obvious benefits to patients include:

- Having an operation when convenient to the patient
- Minimum disruption to the patient's life
- Sleeping in his/her own bed
- The assistance of his/her own carer
- The provision of food, drink, medication and the bathroom when required by the patient
- Ready access to out of hours help and advice.

Day surgery should have no significant impact on the GP's workload (Mitra et al, 2003; Cooke et al, 2004).

Applying day surgery principles to medical procedures

The authors will now share their experience of applying the day surgery philosophy to medical patients.

Historically, those in need of venesection, certain medical investigations or chemotherapy were invited to attend inpatient facilities and wait for a junior doctor to become available. It did happen that some patients waited all day and eventually completed their care by staying in overnight.

In recent times the day medical unit has flourished in the authors' organization. They have a menu of therapies accessed by the haematologists, endocrinologists and neurologists. The service was evolved and is provided by two former day surgery nurses (*Figure 1*). Patient satisfaction levels are high. Inpatient medical beds have been released Junior doctors have been relieved of many tasks and therapies are administered by staff trained to do the jobs well.

Commissioning surgical services: trolleys and baskets

Seventy five per cent of elective surgery can be done as day surgery. Minor surgery is moving out of the operating theatre, and overall numbers of cases will fall. Day case lists will be progressively populated by a true surgical workload. It is now the norm for hernia repair, varicose veins and cataract extraction to be done as day surgery, and increasingly hernia repair is done under local anaesthesia.

Core day surgery procedures constitute the basket. The range of procedures in the basket is increasing. Twenty years ago, who would have considered it plausible to remove a gall bladder with a laparoscope and do it as a day case? The trolley carries procedures which are suitable for day surgery in some cases: thoracoscopic sympathectomy, salivary gland excision and prostatectomy (Lloyd and Lloyd, 2004). Day endocrine surgery is moving forward with partial thyroidectomy and parathyroidectomy (Scott-Coombes, 2005). Also in its infancy is day surgery major joint replacement (Muirhead-Allwood, 2004).

Figure 1. Principles applied to handling medical outpatient treatments.

Pyda et al (2004) have demonstrated the use of day surgery facilities to manage acute abscesses. Because these procedures are relatively easy to cost with a degree of accuracy, the basket and trolley concepts make day surgery the obvious test bed to evolve and validate commissioning models. There is a clear opportunity to forge direct links with primary care to build elective surgical services for the future (Maquez, 2003).

Day surgery workforce: 42

Recruitment and retention of staff pose real problems across the NHS. The Agenda for Change programme endeavours to reward those who take on new roles and increase their value and contribution to service provision. This should spawn more stable clinical teams and reduce dependence on costly imported agency staff. Nurses and professions allied to medicine need not run out of career development opportunities in their mid-thirties.

Douglas Adams (1980), in his novel *The Restaurant at the End of the Universe,* describes that 42 was the answer to the ultimate question of life, the universe and everything. As the new ways of working programmes unfold we are conservatively able to identify at least 42 ways in which to modernize and extend the roles of the perioperative workforce. The broad territories that they cover include:

- Diagnosis and preparing the patient for surgery including consent
- Evolution of the anaesthetic team
- Surgical practitioners
- Post surgery and community follow-up.

Many of these roles have evolved from the need to manage service deficiencies identified by frustrated clinicians. The potential to maximize the skills of our workforce is only limited by our imagination.

Day surgical units and treatment centres

It is accepted that although the lion's share of elective surgical care will be done by day care there will remain a need for facilities that can provide longer hospital stays. At present, hysterectomy and major joint replacement are examples of procedures managed on this extended length of stay model. It is important to appreciate that the principles of patient care that underpin them are simply the day care model stretched to an appropriate but increased length of stay.

The British Association of Day Surgery

What makes the British Association of Day Surgery strikingly different from most other clinical societies? First there is its membership, it is truly multidisciplinary and active participants include anaesthetists, surgeons, managers, GPs and crucially, members of the multi-skilled teams.

The primary foci of the Annual Scientific Conference held in June are the promotion of pioneering practice and the delivery of efficient high quality care to patients. Therefore most clinical papers are relevant to all delegates irrespective of clinical background.

Conclusions

What will succeed current methods of elective surgical provision? The NHS is still failing to fully appreciate the rewards from day surgery driven elective surgical care. Frustrations are widespread at deferring these opportunities. Hopefully with the switch to patient-need driven commissioning systems, patients, purchasers and providers will benefit from care being specifically purchased as day care.

What will the surgical hospital of the future look like? It seems increasingly likely that secondary care will contract down around acute and critical care, diagnostics and interventional radiology and day surgery will increasingly dominate elective operative procedures. **BJHM**

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KEY POINTS

- The time is overdue to reap the benefits from day surgery.
- Day surgery practice will set the gold standard for theatre utilization.
- Workforce development can be maximized in the day surgery setting.
- Baskets and trolleys lead easily to developing demand sensitive commissioning.
- Potential for robust strategic alliances with primary care.
- Agile day surgery will respond rapidly to changing clinical practice and market forces.