1 Introduction to Day Surgery

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Historical background

The evolution of day surgery has heralded a new era of medical, anaesthetic and nursing knowledge, skills and practice. Surgical techniques and technological advances coupled with developments in anaesthetic approaches have contributed positively and significantly not only to the initial but ongoing developments within the field of day surgery, which today accounts for 50–80% of all surgical procedures. The international drive to increase day surgery rates is grounded in the well articulated benefits including: reduced demand for overnight or weekend staff, hence reduced costs; more rapid throughput of patients; reduction in the number of patients on waiting lists and reduction in the number of patients who fail to attend for surgery. Potential problems associated with surgery (post-operative nausea, vomiting or pain), responsibility for which may fall within a self-care remit or entail an increased burden on community services, require attention to ensure that day surgery services appropriately address these requirements. The political, economic and policy-driven demands for greater bed utilisation, value for money and cost containment measures have influenced the expansion and development of day surgery throughout its history.

The growth of day surgery, albeit a substantial one, is not a new concept. In the early stages of nursing, its founder, Florence Nightingale, noted that patients should not stay a day longer than is absolutely necessary in all hospitals and in particular children's hospitals (Nightingale 1914). In recognising the significant value a shorter hospital stay has for the patient, her opinion was not based upon economic or political perspectives, but on

reducing the possibility of patients contracting further illness or diseases as a result of hospitalisation.

One of the earliest references to day surgery is that of the now landmark publication by Dr Nicoll in the *British Medical Journal* in 1909. Nicoll outlined his ten-year surgical experience of performing 8988 day surgery procedures at a Glasgow outpatients clinic for sick children. Over half of the children were less than three years old. The procedures included treatment of cleft palate, hare lip, hernias, talipes and mastoid diseases. Nicoll disapproved of hospitalisation and was adamant that children should return to their nursing mothers as early as possible. Even at this early stage of day surgery, he drew attention to the necessity for suitable home conditions in addition to General Practitioner (GP) support, a feature that was reiterated in 1955 by Farquharson.

In 1916 Ralph Waters wrote about his establishment of a free-standing anaesthesia clinic in Iowa, providing day surgery for dental and minor surgery cases. The revolution had begun. Hospital-based ambulatory units were developed in 1959 by Webb and Horace in Vancouver, in 1962 by Cohen and Dillon in Los Angeles and in 1970 by Levy and Coakley in Washington. The first successful free-standing ambulatory facility was established in 1969 by Ford and Reed in Arizona (Epstein 2005).

The day surgery revolution within the United Kingdom (UK) was slower to progress since first being mooted by Nicoll in 1909. It was not until over 50 years later, in 1960, that the first stand-alone day surgery unit within a hospital in the UK was developed at Hammersmith (Calnan and Martin 1971). In response to the evolution of day surgery, the Royal College of Surgeons in England published *Guidelines for Day Surgery* in 1985, based upon a working party report which stated that day surgery was the best possible option for 50% of all patients undergoing surgical procedures electively. At the time of the report the national average for day surgery was as low as 15%, despite Palumbo et al. (1952) outlining the possibility of greater bed utilisation owing to a shorter length of stay.

In 1989 the British Association of Day Surgery was established with a multidisciplinary membership, recognising the necessity for quality in the delivery of day surgery and the potential benefits, not only for patients but for the health service. Key drivers for day surgery within the UK were a number of pivotal reports published over a short period of time, which brought into intense focus the proliferation of day surgery units and facilities within the National Health Service (NHS). The first of these, the Bevan Report (1989), was undertaken by the NHS Management Executive Value for Money Unit. Support for day surgery expansion was indicated, given the significant impact it would have on waiting lists and financial costs. In 1990 the Audit Commission, an external auditor for the NHS, published *A Short Cut to Better Services*. This report is now recognised as one of the major catalysts for the development and advancement of day surgery within the UK. It examined the expansion of day surgery within England and

Wales, concluding that the rate of expansion was slower than anticipated; it also identified significant variances in day surgery between health authorities. A consequence of the report was the introduction of what became known as the 'basket' of 20 common procedures – still in use today – that could be performed as day surgery cases. The rationale for the introduction of this 'basket' of procedures was to develop uniformity and limit the variance in day surgery procedures across the health service, with a view to improving cost-effectiveness by increasing the number of patients that could be treated as day cases. The Audit Commission also reported on possible barriers to the growth of day surgery, such as lack of facilities, poor management structures and a preference for traditional approaches, and suggested methods to overcome them.

Building on the Audit Commission report, in 1991 the Value for Money Unit published *Day Surgery: Making it Happen*. This report focused on the design, practice and management of day units, outlined recommendations on staffing, training and quality, and highlighted the financial rewards for the NHS. Also in 1991 the Audit Commission reported on day surgery from the patient's perspective: their investigation found that 80% of patients preferred day case surgery, with 83% recommending this approach to a friend. This report reinforced awareness of acceptance of day surgery by patients, thus justifying the continued expansion of this approach to surgery.

One of the motivating factors for the expansion of day surgery was clearly the resultant financial rewards for the NHS, although significant funding for the establishment of day surgery facilities would first be required. In recognition of the financial implications, a regional task force to oversee investment was established in the early 1990s. The task force produced a toolkit for managers and clinicians as an aid for the establishment and review of day surgery facilities, and set a target of 50% for all elective surgery as day case procedures. Despite significant investment, the report of the task force in 1993 revealed that few proposals had been implemented, with considerable variation in progress towards meeting the 50% target across the NHS, and raised the target to 75%. Not surprisingly, in 2001 the Audit Commission confirmed that no service was achieving 75%, with a number of units not being utilised to maximum capacity. Consequently, £31 million was invested from the Funding treasury Capital Modernisation in order to achieve the target of 75%. In conjunction with the launch of the Day Surgery Strategy in 2002, the *Day Surgery Operational Guide* was published in order to support the drive towards achieving the target of 75% and the Department of Health's commitment to this strategy was evidenced by the inclusion of day surgery for inpatient stays as one of the NHS Modernisation Agency's '10 High Impact Changes'.

By 2003 the Healthcare Commission was created and given the authority to take over responsibilities from other commissions, including the Audit Commission. In a review of the acute hospital day surgery portfolio in 2005, the Healthcare Commission reported that variability in the organisation of

day surgery continued to exist. Determining the overall achievement of the 75% target proved difficult as a result of this variability. The report concluded that support for increased capacity and measures to improve the level of uptake of day surgery should be continued.

Approaches to day surgery development vary within the developed world. The Republic of Ireland (ROI), for example, although in close proximity to the UK, presents a very different picture in terms of progression and innovation: the motivation towards an increase in day surgery rates in ROI was much slower and less well defined. The reasons for this are multifaceted and include complex factors related to gross under-funding of the health system in addition to organisation, management and structure of the health system itself. In 1980 day surgery rates were as low as 2%, which is not surprising given that the number of day surgery beds recorded for that period was just 26 (DOHC 2002). In the period between 1980 and 2000, this figure increased to 562, with a subsequent increase in overall activity from 2% to 38%. The low level of day surgery rates in Ireland in the 1980s was indicative of significant under-funding of services during this period. The 1990s saw a period of reform in which the Irish healthcare system was struggling to compensate for the investment deficit of the 1980s. The most significant increase in day surgery rates occurred during the decade 1990–99, when figures rose from 20% of total activity to 38% (DOHC 2002). Much of the early developments and achievements can be attributed to the health strategy of 1994, 'Shaping a Healthier Future' (DOHC 1994).

One of the earliest references promoting the advancement of day surgery in ROI was made by the Report of the Commission on Health Funding (1989), which highlighted the cost-effectiveness of increased bed utilisation in the context of the lengthy waiting lists which were a feature of healthcare at this period. Concluding that an improvement in the utilisation of hospital beds as a result of day surgery would positively impact on waiting lists, the report recommended the development and implementation of a 'casemix' funding approach, which would lead to a rapid move towards the provision of surgery on an outpatient or day ward basis. This recommendation was a major catalyst in the development of day surgery in Ireland: funding was awarded on the basis of increased bed utilisation and activity and the National Casemix programme was instituted in 1991 (DOHC 2004). A national review of the casmix programme in 2004, 12 years following its institution, concluded that 95% of all acute inpatient and day-case hospital admissions were participating in the national casemix programme, with 20% of the activity related funding for the hospitals being casemix dependent (DOHC 2004).

In a number of governmental reports, which strengthened efforts to progress day surgery by reinforcing the benefits of this approach, a common theme was the absence of clearly defined national targets for day surgery rates in Ireland. The impetus for improvement in day surgery rates appeared to rely on the motivation to procure additional funding through the casemix

programme, based upon day surgery performance activity rates. The 1994 health strategy, 'Shaping a Healthier Future', outlined the significant increase in day surgery rates, from 15% in 1987 to 25% in 1993, and indicated the expected rise in this trend for the years ahead. Specific, quantifiable targets for improvement in day surgery rates were not, and are still not clearly articulated, with performance assessment based solely upon the impact on hospital waiting lists.

Healthcare waiting lists endured as a constant feature within the Irish healthcare system. In 1998 the report of the review group on the waiting list initiative recommended a continued move towards day case work (DOHC 1998) and proposed a close examination for the provision of stand-alone day surgery units on acute hospital sites in order to address the number of patients on waiting lists between 1999 and 2001.

Acknowledged within the report was the necessity, as a matter of urgency, to review and address the capacity of acute hospitals. The contentious issue of hospital capacity is one that was mirrored by the value for money audit of the Irish healthcare system by Deloitte and Touche (DOHC 2001a). The audit, commissioned by the Department of Health, concluded that although day surgery rates were improving, overall capacity of the acute hospitals was adversely affecting bed utilisation in addressing the significant waiting list. Utilisation of day surgery beds for inpatient care was a becoming a common feature as a direct result of capacity issues within the acute hospital sector. The publication of the health strategy *Quality and Fairness* (DOHC 2001b) sought to address these issues. This report focused on equitable access to service and set as one of its targets an increase in proportion the number of one-day procedures. Although it did not quantify this increase in terms of a national target, it did recommend the establishment of a National Treatment Purchase Fund, whereby patients on the public waiting list could avail themselves of treatment purchased by the state from private hospitals. Since its establishment in April 2002, the NTPF has facilitated 120,000 cases/people (www.ntpf.ie accessed September 2008). The impact on the public service has been to relieve the capacity crisis by reducing the number of day-case beds being inappropriately used as inpatient beds, so reducting the number of patients on hospital waiting lists. The organisational and structural components of the health system also required attention in order to drive these changes.

The Health Service Reform Programme (DOHC 2003) outlined the structural changes that were necessary in order achieve positive improvement in healthcare delivery in Ireland. These included rationalisation and reorganisation of the existing health service agencies to reduce fragmentation, and the establishment of a Health Service Executive on the basis of three core divisions: a National Hospitals Office; a Primary Community and Continuing Care Directorate; and a National Shared Services Centre. The National Hospitals Office is now charged with the responsibility for the management of the acute hospitals sector.

As a result of these reports, strategies and reforms, the number of day-case procedures in Ireland has continued to rise annually, from 357,676 cases in 2001 to 448,676 cases in 2003 (DOHC 2005). The importance of governmental policy in supporting the development of day-case approaches to surgery should not be underestimated. Advances in anaesthesia, surgical technique and nursing care in day surgery require significant financial, managerial and organisational support, not only at a high level within an organisation but also at governmental policy level, in order to establish a coordinated and committed approach. Although the rate of development of day surgery care may vary between countries and within national health care provision, what is important is the obvious benefit not only for providers but also for patients.

Overview of services

Day surgery services are constantly evolving and are delivered in a variety of ways in a variety of units. In order to gain the insight required to interpret them in detail, it is pertinent to examine specifics such as how and where services are delivered and levels of patient satisfaction achieved; definitions, terminology, structure, organisation and delivery of day care also require exploration.

Traditionally day surgery is defined as the same-day admission and discharge for a planned surgical procedure whereby the patient has made a complete recovery from their procedure. The patient may undergo a pre-assessment procedure whereby their suitability for day surgery will be assessed. The term 'ambulatory surgery' is used interchangeably to describe the same process. There are a variety of ways to provide ambulatory/ day surgery services, each with its advantages and disadvantages.

Office or outpatient surgery

Day surgery operations or procedures carried out in the medical practitioner's own office or outpatient department, by their very nature, do not require treatment or observation in a day surgery centre or unit. This type of service offers patients swift access to minor surgical procedures, without the necessity for admission or observation (IAAS 2003; Australian Day Surgery Council 2004).

Free-standing day surgery centre or day surgery facility

Free-standing day surgery centres are self-contained units designed solely for day surgery, which ultimately result in greater patient satisfaction rates

(DH 2002; Seibert et al. 1999), typically contain their own admission unit and clinical, theatre and recovery areas. Although the initial development costs are high, these units prove to be the most cost-effective option long-term (Bureau of Health Planning and Resources Development 1997), because they offer a more streamlined approach to the patient's surgical journey. A noteworthy disadvantage of these facilities is their limited access to broader services, such as intensive care and radiology, which may be necessary as a result of unforeseen complications in the post-operative period (Cahill and Jackson 1997). This is an issue specifically addressed in emerging guidelines and standards, whereby some such units will need to have immediate access to facilities for unforeseen major complications (Australian Day Surgery Council 2004). Dedicated teams solely employed by these facilities are necessary, as movement of staff, in particular of surgeons between healthcare facilities has the potential to reduce the efficiency of day surgery centres.

Dedicated day surgery and shared day surgery facilities within a hospital

Dedicated day surgery facilities are purpose-built units within an existing hospital, with their own admission suite, theatre, recovery and discharge areas. This type of unit is the most desirable, as it operates independently of the hospital but has the considerable advantage of immediate access to facilities such as radiology and intensive care or inpatient admission in the event of unforeseen complications. Shared day surgery facilities within a hospital denotes the establishment of a day surgery facility with separate admission, pre-assessment and clinical areas but shared theatre and recovery areas. The advantage of this type of facility is the separation of inpatient and day-patient activity. A dedicated pre-assessment area within the unit offers patients not only the advantage of familiarity with the unit's geography but also the opportunity to meet the clinical staff who will be caring for them. Disadvantages include sharing of recovery and theatre space; in particular the latter may lead to an increase in day surgery cancellations in favour of inpatient lists; day surgery patients may also be delayed until later in the daily theatre list, resulting in a later discharge or the risk of cancellation and unplanned overnight admission.

Parallel day surgery facility within a hospital

In this type of unit, day surgery patient admission, theatre and recovery are all carried out in parallel to existing in-patient services. The patient in this unit is at a significant disadvantage in comparison to the previously described units: the possibilities for delay at the point of entry, cancellation or even admission overnight, are enhanced. In comparison to a free-standing unit,

the increase in the rate of overnight admissions rises from 2.4% to 14% (Cahill and Tillin 1995). Moreover, the complex nature of some patients' demands in the clinical area requires increased nursing-care time, limiting the level of attention available for less complex day surgery patients. One great advantage of this type of facility is that they are less costly to establish.

Extended day surgery facility

Some services have developed extended day surgery facilities. These may be purpose-built, free-standing, or within a day surgery centre or hospital specifically designed for purposes of extended recovery from day surgery procedures. Extended recovery includes any admission and discharge within 23 hours. Once the 23-hour period is exceeded, the patient is no longer a day-case patient and is classed as an inpatient. One key advantage of this type of facility is the ability to perform complex major surgical cases, which are suitable as day surgery but require an extended period of recovery not exceeding 23 hours. These facilities also permit evening surgery, facilitating recovery and discharge the following day within the 23-hour period, rather than discharge at an unsociable hour. One potential challenge is that surgeons and patients may choose to avail of an optional overnight stay which may not be absolutely necessary, thus leading to an overall reduction in reported day surgery rates. One way to address this difficulty is to separate fully day surgery and extended day surgery facilities. However, in practice this is not practical or feasible, as it would mean separation of clinical expertise rather than concentration and cohesion of clinical expertise at one site. The cost of overnight staffing also requires careful examination in the choice of this facility.

Limited care accommodation

This innovative initiative includes accommodating day surgery patients in hospital, hotel or hostel accommodation, where professional healthcare is available on an on-call basis. This type of accommodation is also utilised to support patients requiring a longer stay due to social rather than medical/nursing needs. As this is a new concept in day surgery, there is as yet little evidence to demonstrate its effectiveness or its limitations. The Australian Day Surgery Council report recommendations on the use of this type of facility include: physician-only determination of patient suitability; connected to or on-site with the acute hospital; immediate availability of a manager or attendant, such as a nurse or person trained in CPR; an emergency 24-hour call system in the room; CPR trolley; medical utility room, arrangements for immediate transfer to an acute hospital; and appropriate records (Australian Day Surgery Council 2004).

Whatever the service location or type, the quality of the service delivery to patients is of paramount importance. Within the realm of day surgery services, quality is high on the agenda, with numerous reviews and research initiatives on the efficacy of this approach to surgery from the patient's perspective, utilising patient satisfaction levels as a clinical indicator of service delivery. In conjunction with the development of day surgery in the UK, the Audit Commission and later the Healthcare Commission completed a number of reviews of day surgery in the NHS to ascertain patient satisfaction with the delivery of this service (Audit Commission 2001; Healthcare Commission 2005).

Today's Day surgery units are providing improved outcomes for both patient care and indeed satisfaction as a direct result of process improvements in a number of key areas such as: patient pre-assessment within six weeks of admission; choice of appointments at the booking phase; individualised patient arrival times; telephone reminders about admission date and time to patients; pre-admission and discharge written information; all of these initiatives have positively resulted in a reduction in non-attenders (Healthcare Commission, 2005).

Additional key indicators of patient satisfaction in day surgery are the management of post-operative pain, nausea and vomiting. Post-operative pain control is a prominent and well documented feature in surgery and, indeed, within day surgery (Yeng et al. 2002). Within day-case surgery, several studies have demonstrated an association of well managed post-operative pain control, nausea and vomiting with increased levels of patient satisfaction (Jenkins et al. 2001; Gan et al. 2001; Bain et al. 1999; Scott and Hodson 1997). Overall day surgery is viewed positively not only from the health service providers' perspective but – more importantly – from the patients' perspective.

Common presenting conditions

The scope of day surgery procedures has steadily expanded since the initial concept was described. By the end of the twentieth century, day surgery procedures had increased profoundly, with significant growth in the number of facilities offering treatment. The largest influencers of day surgery practice and, more essentially, procedures include governmental organisations, national and international dedicated day surgery associations, and colleges of surgery.

From an international perspective, the International Association for Ambulatory Surgery has completed regular, ongoing surveys of day surgery procedures, in an attempt to define the categories not only of common procedures but also of revolutionary procedures. As already mentioned, in collaboration with the Association, De Lathouwer and Pouiller (1998)

conducted two surveys, in 1994 and 1996, defining a 'basket' of 20 procedures. The International Association for Ambulatory Surgery undertook a further survey in 2003 (IAAS 2003), in which the original 20 procedures were supplemented by 17 more. This increase in procedures has occurred primarily due to an increase in the number of surgical specialities, such as vascular and urology, in addition to developments of surgical procedures suitable for day case surgery. These include laparoscopic assisted hysterectomy and Trans Urethral Resection of the Prostate (TURP). Table 1.1 lists

Table 1.1 Surgical procedures suitable for day case surgery I (*IAAS 2003*)

Procedure	**Specialty**
Cataract removal Squint correction	*Opthalmology*
Myringotomy with tube insertion Tonsillectomy Rhinoplasty	*Ear, Nose and Throat*
Surgical removal of tooth	*Dental*
Endoscopic female sterilization Termination of pregnancy Dilatation and curettage of uterus Hysterectomy	*Gynaecology*
Inguinal hernia Circumcision Orchidectomy + – Orchidepexi Male sterilisation Varicose veins Pilonidal sinus Transurethral resection of the prostate	*General surgery and Urology*
Knee arthroscopy Arthroscopic meniscus Removal of bone implants Repair of deformity on foot Carpel tunnel release Baker cyst Dupuytrens contracture Cruciate ligament repair Disc operations	*Orthopaedics*
Repair of cysto and rectocele Local excision of breast Mastectomy Laparoscopic cholecystectomy Laparoscopic anti-reflux Haemorrhiodectomy Broncho-mediasinoscopy	*General surgery*
Bilateral breast reduction Abdominoplasty	*Plastic Surgery*
Removal of colon polyps Colonoscopy with/without biopsy	*Endoscopic*

these procedures and their respective specialities from the International Association of Ambulatory Surgery (IAAS 2003).

In the UK, a 'basket' of procedures was similarly developed over 15 years ago, outlining 20 procedures suitable for day surgery (Audit Commission 1990). This list has been recently reviewed in association with the British Association of Day Surgery and now constitutes 25 procedures upon which current day surgery performance in the NHS is based. This new set of 25 procedures details a list of common procedures in addition to those that may be suitable for day case surgery (Healthcare Commission 2005). Table 1.2 outlines the list of 25 procedures (Healthcare Commission 2005).

Within the Republic of Ireland, determining an exact 'basket' or list of procedures presents significant difficulty, as a result of the aforementioned casemix approach to recording clinical cases. The reporting of day-case procedures via the casemix method records the total number of day cases by case groups which includes day case chemotherapy, radiation, transfusions etc which are clearly not day surgical procedures. Moreover whereby procedures are recorded it is as a grouping procedure rather than a statement of the actual procedure. As a result extrapolation of this data from

Table 1.2 Surgical procedures suitable for day case surgery II (*IAAS 2003*)

Procedure	**Speciality**
Extract of cataract with/without implant	*Opthalmology*
Correction of squint	
Myringotomy	*Ear, Nose and Throat*
Tonsillectomy	
Sub mucous resection	
Reduction of nasal fracture	
Operation for bat ears	
Dilatation and curettage/hysteroscopy	*Gynaecology*
Laparoscopy	
Termination of pregnancy	
Carpel tunnel decompression	*Orthopaedics*
Excision of ganglion	
Arthroscopy	
Bunion operations	
Removal of metalware	
Excision of Dupuytren's contracture	
Orchidopexy	*General surgery and Urology*
Circumcision	
Inguinal hernia repair	
Excision of breast lump	
Anal fissure dilatation or excision	
Haemorrhiodectomy	
Laparoscopic cholecystectomy	
Varicose vein stripping or ligation	
Transurethral resection of bladder tumour	

the casemix groups was required to generate the following list of procedures in Table 1.3 (DOHC 2005).

Instituting a nationally agreed set of procedures has significant advantages, which include: standardised safe approaches to practice and procedures; clarity on the scope of suitable day procedures and revolutionary procedures being undertaken; evaluation and review of performance relative to national and international targets, with a clear vision on the direction of

Table 1.3 Surgical procedures suitable for day case surgery III (*DOHC, 2005*)

Procedure	**Speciality**
Eye procedures	*Opthalmology*
Internal ear procedures	*Ear, Nose and Throat*
ENT procedures	
Nasal procedures	
Sinus procedures	
Tonsil/adenoid/gland procedures	
Tympanoplasty	
Dental surgery	*Dental*
Gynaecological and peritoneal procedures	*Gynaecology*
Aspirations and endoscopic gynaecological procedures	
Evacuations	
Spinal procedures	*Orthopaedics*
Knee procedures	
Hand and foot procedures	
Lower limb procedures	
Upper limb procedures	
Elbow procedures	
Open reduction and fusion	
Removal of internal orthopaedic devices	
Tendon and muscle procedures	
Soft tissue procedures	
Closed reduction	
Other bone procedures	
Maxillo-facial procedures	*Plastic Surgery*
Vascular procedures	*General surgery and Urology*
Lower urinary tract procedures	
Upper urinary tract procedures	
Ano-rectal procedures	
Male genital procedures	
Cholecystectomy	
Trans-urethreal prostatectomy	
Lithotripsy	
Mastectomy	
Circumcision	
Hepato-biliary procedures	
Hernia procedures	
Plastic procedures	
Breast plastic procedure	

day surgery. Management and organisation of day surgery in this approach also facilitates greater understanding and knowledge by patients, with enhanced clarity on exact day surgery procedures and of the day surgery facilities offered within their health service. This approach offers health-care providers the opportunity to compare their individual services based upon an agreed procedure list, in order to identify areas for process improvement.

Recent innovations in day surgery

The rapid expansion of day surgery as a result of surgical, technological and anaesthetic advances has demanded equal advancement in nursing practice. Pioneering nursing roles and practices as a specialty within day surgery have emerged in response to these developments. In particular, these advances have signalled the development of nurse-led pre-assessment clinics for patients attending for day surgery (Hilditch et al. 2003a; Hilditch et al. 2003b; Fellowes et al. 1999; Dunn 1998), which will be further discussed in Chapter Three. This initiative has signalled the development of nursing education programmes specifically designed for pre-assessment skills in conjunction with guidelines for practice (NHS Modernisation Agency 2002; Ormrod and Casey 2004). One of the criticisms of nurse-led pre-assessment in day surgery is that it is medically driven and consisting of tasks (Rai and Pandit 2003; Hilditch et al. 2003a; Fellowes et al. 1999).

Nurse-led pre-assessment care offers a comprehensive approach to preparation of the patient for day surgery with the inclusion of: complete history; physical examination; laboratory testing; ECG in determining patient suitability for day surgery; identification of special, cultural and home support requirements; written and verbal information about their procedure (Jeménez et al. 2006). Pre-assessment is considered to be a critical requirement for successful and safe day surgery (NHS Modernisation Agency 2002). Considerable evidence also supports the benefit of nurse-led pre-assessment in reducing the number of DNAs (Did Not Attend), positively impacting on waiting lists by pre-selecting patients suitability in addition to increased levels of patient satisfaction (Clinch 1997; Clark et al. 1999; Clark et al. 2000; Rai and Pandit 2003; Gilmartin 2007).

In addition to the traditional aspects of nurse-led, day surgery pre-assessment, recent innovations demonstrating best practice include telephone screening questionnaires as an effective intervention for pre-admission care (Pearson et al. 2004; Basu et al. 2001). Telephone screening has proven advantages in reducing the number of patients who fail to attend for day surgery. It makes it possible to ascertain the patient's physical condition on the eve of the operation and allows for the reiteration of instructions and information whilst further enhancing the nurse–patient relationship.

Innovations in the reduction of patient anxiety pre-operatively include the institution of distraction therapies such as music as a positive intervention (Cooke et al. 2005; Lee et al. 2004); Mitchell (2000) found that patient anxiety was an area for considerable development and improvement.

A further innovation in nurse-led day surgery pre-assessment is the development of self-managing day surgery nursing teams (Macdonald and Bodzak 1999). Self-managing day surgery nursing teams combine caring, expanded managerial roles, financial responsibility and clinical nursing services successfully. In a longitudinal study by Macdonald and Bodzak (1999), the self-managing day surgery nursing team demonstrated positive staff morale and excellent quality of care, with increased activity and cost-effectiveness. Surprisingly, this approach has not been widely implemented throughout the specialty of day surgery care, quite possibly as a consequence of ill-defined guidance on recommendations for staffing requirements, which appears to be a feature of day surgery from a nursing perspective (Gilmartin 2007).

Nurse-led pre-assessment has also been identified as an area for advanced nursing roles such as nurse practitioner roles. Wu, Walker and Owen (2007) describe a nurse-led clinic for tonsillectomy, whereby direct referral to a nurse-led pre-assessment clinic is by General Practitioners. The nurse practitioner makes the autonomous clinical decision, within an agreed set of protocols, to determine not just the suitability but the necessity to proceed with a planned tonsillectomy and proceeds to complete the surgical pre-assessment and preparation for each of these patients. In a review of the clinic, the DNA rate demonstrated it to be effective and efficient, with complication rates not significantly different from national trends. Innovative practices and roles such as these are paving the way for revolutionary nursing practice within the sphere of nurse-led day surgery care.

Conclusion

Contemporary day surgery has heralded a new era of healthcare knowledge, skills, practices and approaches. Surgical techniques and technological advances, coupled with developments in anaesthetic approaches, have contributed positively to the increase in cases suitable for day surgery, thus contributing to the expansion of services. To facilitate these growing services, innovative methods of ensuring high quality care are required, including specifically designed day surgery units and specialist nurses services, such as nurse-led admission clinics.

The rapid expansion in day surgery internationally will demand ongoing, rapid development of nursing practice to meet the requirements of patients availing themselves of these new services. More importantly, in meeting these challenges, the nursing profession will be required to examine the very

nature of its processes, models of care and developments in clinical nursing practice, in order to deliver nursing care that is holistic yet dynamic and reflective of patients' needs. Further consideration is given to the nursing implications of these developments in subsequent chapters.

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