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A patient management program: The evaluation of a combined pre-admission and early discharge program

Lorna Rogers
Edith Cowan University

Edith Cowan University

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A Patient Management Program

The Evaluation Of A Combined

Pre-Admission And Early Discharge Program

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Student: Lorna Rogers

Student Number: 0876132

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ABSTRACT

The purpose of this descriptive study was to describe the evaluation of a 'Patient Management Program'. This managed care type of program combined a Pre-Admission Clinic and an Early Discharge Program. It was established as a twelve month pilot program at a major Western Australian public teaching hospital in January 1995. It aimed to provide a more efficient health service by replacing part of elective surgical patients' inpatient care with outpatient services.

The first component of the Program was the Pre-Admission Clinic, which allowed patients to undergo pre-operative assessment and testing prior to admission to hospital, thus facilitating same day of surgery admission and reducing hospitalisation by at least one day. It also enabled identification of patients unfit for surgery; allowed discharge planning to be initiated, and patient education to be undertaken.

The second component of the Program was the Early Discharge Program, which aimed to facilitate patient discharge from hospital, and to provide acute post discharge care and support. The significance of this component was the continuity of care, as the same nursing staff who provided pre-admission assessment, education and discharge planning also provided inpatient discharge co-ordination, post discharge support, and the delivery of domiciliary nursing care.

The length of stay and associated costs of an experimental group of patients were compared with two control groups. Control group 1 was a

cohort of concurrent hospital patients who met the same inclusion criteria as the experimental group, but did not participate in the Program. Control group 2 comprised a retrospective cohort of inpatients from the previous year and was used to control for contamination between the experimental group and control group 1. In addition, a Patient Satisfaction Survey was utilised to determine satisfaction with the Program.

A descriptive analysis determined an overall reduction in length of stay of the experimental group compared to control groups 1 and 2 and high patient satisfaction with the Program. There are important implications associated with the outcomes of this study not only in the ability of the Program to reduce length of stay and costs, but also, in the viability of such a Program in a large public teaching hospital and in its ability to meet patients expectations of a quality health service. The concept of this Program is relatively new in Australia and it is expected that the descriptive data provided by this Program will be useful in assisting other hospitals in Australia to develop similar programs.

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DECLARATION

"I certify that this thesis does not incorporate, without acknowledgment, any material previously submitted for a degree or diploma in any institution of higher education and that, to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where due reference is made in the text".

Lorna Rogers

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CHAPTER ONE

Introduction

Being hospitalised for surgery is known to be a cause of great anxiety for many people for many reasons. Major reasons documented pertain to such issues as: fear of the unknown; the possible consequences and outcomes of surgery; (Graham & Conley, 1971; Richardson & O'Sullivan, 1991), feelings of loss of control and independence (Wilson-Barnett, 1976); separation from family and concern as to how their family will cope; and feelings of vulnerability and loss of control (Irurita, 1993).

Traditionally, public hospitals have been institutionally focused, treating patients in accordance with established routines, protocols and conventions, with little regard to patient fears, demands or expectations. In effect, patients have been regarded as passive recipients of health care. Over the past decade, however, heightened consumer awareness and changes to hospital funding contracts have increased demands on hospitals to provide and maintain a quality, customer focused service as well as improving efficiencies.

The provision of public hospital care is an expensive and labour intensive process that must be accommodated within finite resources. With an ever increasing number of people choosing to leave private health insurance cover (Private Health Insurance Council, 1994) there is a corresponding increase in the services required of the public hospital sector. Healthcare reforms in response to these pressures have been influenced to a

large extent by similar healthcare reforms such as those undertaken in other western countries, particularly the United States of America (USA), Canada and the United Kingdom (UK). In the USA regulations by government and private insurers, including managed health care organisations, have contributed to the forced reduction of length of stay in health care institutions (Burden, 1992; Noon & Paul, 1992). In regard to North American health care services Snyder (1993) maintains that the consumerism movement is the driving force which has compelled hospitals to look at marketing strategies that are price-orientated and focus directly towards quality services for the consumer. Similarly, the Australian health care system has tentatively moved towards similar strategies and is currently reviewing funding agreements to meet these service demands.

Diagnostic Related Groups (DRG)/Casemix funding is a form of funding agreement which classifies patients into those diagnoses classified as requiring similar levels of care and expenditure. Health care service is then apportioned funding in accordance with the number (or throughput) of patients in groups being treated by the hospital. The incentive for funding is the ability to reduce patients' length of stay, reduce costs, and to allow an increase in the availability of hospital beds thus increasing the number of patients able to be treated. The instigation of this type of funding has led to the establishment and evaluation of programs such as the Patient Management Program which this study will describe. The predominant aim of such programs is to reduce length of stay, reduce costs, increase throughput

and to meet these aims without increasing morbidity rates which can be associated with the decreased length of inpatient stay if post discharge support is inadequate. Just as importantly, these programs aim to provide quality services that reduce patient anxiety and encourage compliance and satisfaction with reduced length of hospital stay.

This research project was implemented as part of the Commonwealth 1993/4-1997/8 Medicare Agreement Funding Arrangement (Ambulatory Reform) and administered by the Health Department of Western Australia (HDWA) in conjunction with the study hospital. The specific agreed aim between the parties was to provide a quality customer focused health service, that partially replaced some inpatient care for surgical patients, with outpatient (ambulatory) care and thus reduce length of stay and associated hospital costs. The quality customer focused care aimed to decrease patient morbidity (readmission) rates and increase the throughput of surgical patients.

For these specific aims to be attained the objectives of the project required the establishment of a pre-admission clinic and an early discharge program for particular groups of surgical patients.

Purpose

This study described the evaluation of a Patient Management Program, a pilot project at a large public teaching hospital which implemented and combined two services; a Pre-Admission Clinic and an Early Discharge Program. The Program aimed to provide a continuous, quality, customer focused service whilst reducing the average length of stay, and costs associated with caring for specific elective surgical patients. Effect on throughput and morbidity associated with these patients were also to be monitored. The study makes some comparison of concurrent patients not using the Patient Management Program, and patients from the previous 12 months immediately prior. Although not a formal experimental design, for the ease of reading, the terms experimental group will apply to patients in the Program, and control groups will apply to patients used as comparison.

Significance

The significance of this study lies in the description of both the establishment and evaluation of a new service which combined both a pre-admission clinic and an early discharge program. While the literature mainly demonstrates the benefits to be gained from such programs as distinct entities, the evaluations and implications of combining both services, for hospitals or patients, have not been fully described nor widely reported in either North America or Australia.

The implications for the study hospital are largely dependant upon the determination of any improved efficiencies and/or cost savings as a result of the Program. The gathering of statistical evidence to determine the extent of such benefits may relate directly to the future funding of this and other similar programs.

The benefits, however, of improved hospital efficiency do not lie solely in gains for the hospital. Central to the project was the patient focus as assessed by patient satisfaction. This is an important factor because of the increasing role of consumerism in the health sector, and the associated risk of litigation (Rock, 1985).

More generally, dissemination of information related to this study may impact on other Australian hospitals since this concept is still relatively new.

Research Questions

1. What is the effect on the length of stay of patients in the Patient Management Program as compared with previous years patients.
2. What is the effect of the Patient Management Program on the Hospital costs related to the treatment of patients in the Patient Management Program compared to those of the control groups?
3. What is the effect of the Patient Management Program on the throughput of patients in the Patient Management Program as compared with previous years' patients?

4. What is the level of post discharge morbidity in the Patient Management Program patients as compared to the control groups?

Subsidiary Question

5. What is the satisfaction of patients who attended the Patient management Program?

Operational Definitions

Casemix - is a scientific approach to producing information about health care by building classifications of patient care episodes and making use of these classifications to manage health care.

Clinical Pathways - A process where an expected pathway of clinical diagnosis, treatment and care, is developed and standardised for patients with a particular diagnosis. These processes are pre-recorded and only deviations from the norm are documented formally. They are also referred to as Critical Pathways, Care Maps and Managed Care Plans.

Conventional admission process - Requires a patient to be admitted to hospital at least one day in advance of their surgery at which time they will undergo pre surgical assessment as an inpatient and remain admitted for at least one night following surgery.

Day of surgery admission - Patients are admitted to hospital on the same day of surgery and remain admitted for at least one night following surgery. This differs from conventional admission processes.

Day surgery - A process whereby patients are admitted to hospital, have their operation, and are discharged from hospital on that same day.

Diagnostic Related Groups (DRG's) - This is a classification system which categorises acute episodes of inpatient care into clinically meaningful groups with similar resource consumption. The system is based on the codes allocated to diagnoses and procedures recorded on the medical record patient summary for each episode of care. The concept was developed in the

United States primarily for morbidity reporting purposes (Van Gemet 1993). In Australia the Australian National Diagnosis Related Groups (AN DRG's) is the form of DRG classification used.

Domiciliary care - Nursing care provided to patients after their discharge from Hospital. This care is provided when the patient is discharged from hospital whilst still requiring nursing care, or when the patient requests nursing assistance. This care is given in the patient's home or residence by a nurse from the Patient Management Program.

Early Discharge Program - The second stage of the Patient Management Program and involves discharge planning at Pre-Admission Clinic, daily assessment of suitability for discharge and provision of telephone support and domiciliary care post discharge. Also referred to in this study as the EDP.

Inpatient - A person admitted to the study hospital for treatment.

Morbidity - Patient readmission within one month of discharge with complicating factors attributable to the surgical intervention.

Outpatient - A person who receives treatment from the Hospital but is not admitted.

Patient Management Program - This pilot project was implemented in the study Hospital to combine a Pre-Admission Clinic and Early Discharge Program. Also referred to in this study as the Program or the PMP.

Pre-Admission Clinic - The first stage of the Program which incorporated a new method of booking patients for surgery, and preparing them for admission and surgery. It involved medical, nursing and anaesthetic

assessment education and testing as well as discharge planning. In this study is also referred to as the PAC or the Clinic.

Quality Improvement - Also includes Quality Assurance (QA), Total Quality Management (TQM) and Total Quality Improvement. This concept focuses on the service or product that the organisation is delivering to its customers. It attempts to achieve quality through gradual, but continuous improvement in every practice of the organisation. The ultimate goal is customer satisfaction (Schmidt and Finnigan, 1992; Simpson, 1994).

Satisfaction - Refers to patients' attitudes about health services received and the extent to which the services meet the person's needs (Ware, Davies - Avery and Stewart, 1978).

Support - The provision of emotional, psychological and practical support to patients by the Pre-Admission Clinic nursing staff entailing telephone calls and or home visits.

Throughput - The number of hospital patients admitted, treated and discharged within a twelve month period.

CHAPTER TWO

Literature Review

This review of literature will briefly discuss the economic climate which has led to the establishment and evaluation of programs such as the Patient Management Program, and will then explore the more global aspects of the concepts of pre-admission clinics and early discharge programs. The utilisation and benefits these concepts confer on patients and health care services will also be discussed. As the study links both concepts, a review of literature pertaining to other similar programs is also analysed. Further literature regarding specific aspects related to the establishment of the study Program will be critically reviewed in Chapter 3.

The Australian Healthcare Environment

The Australian healthcare system has been undergoing evolutionary changes over the past two decades. Specifically, the introduction of Medicare in 1984 removed the distinction between state supported, and private patients, with health insurance being contributed through an income tax levy. Some people, however, retained their private health insurance and thus a two tier system of health care remains (Davis and George, 1988). Funding of the public sector health care has become an increasingly costly affair. A new system of funding for health care involving casemix patient grouping is currently being introduced to assist the distribution of resources to hospitals and to reward the most efficient. This manner of funding relies on the level of

resources used for the care of different groups of patients, or their type of diagnoses, to assess the efficiency of the hospital and to determine the appropriate allocation of funding. Efficiency is measured primarily in terms of patients' length of stay and incentives are offered to hospitals to decrease this length of stay and thus increase throughput. The impact this new method of funding will have on hospitals is the requirement for increased efficiencies so as to become competitive with other hospitals vying for finite funding resources. Analysis, planning and development of new patient management systems will thus become a necessary part of this method.

One particular system of patient care management is the 'managed care' system. It is defined by Bachrach (1986) as "the integration of services on the patient level...(it) embodies the concepts of continuity and comprehensiveness in a personalised manner" (p.174). This clinical system of patient management is currently gaining momentum particularly in Canada and the United States. In Australia it is being trialed in different states but particularly so in Victoria where casemix/DRG funding was officially introduced in 1993 (Eager and Hindle, 1994).

The Royal Melbourne Hospital (RMH) commenced its trial of a managed care system in 1992 and defined managed care as;

> a clinical system used to organise patient care to achieve specific patient outcomes within nominated time frames to provide efficient quality care. It is a multi disciplinary care planning process, organised by clinical problem or diagnosis, allowing optimal care to be delivered using

appropriate resources. It enables both the process and outcomes of care to be monitored, and provides a basis for total quality management. (Managed Care at the Royal Melbourne Hospital, 1993).

One of the major tools utilised in the successful application of managed care systems are clinical (or critical pathways) (Hofmann, 1993).

Clinical Pathways

Bower (1992) refers to Clinical Pathways as being the ultimate in case management, because of their ability to incorporate care requirements throughout the continuum of patient care from pre-admission through to post discharge.

Clinical Pathways consist of a multidisciplinary system for planning the care of particular patient groups and are defined by Hofmann (1993, p. 239) as:

> a clinical management tool that helps the nursing staff, physicians, and other departments coordinate the delivery of patient care for a particular casetype, subset, or condition. It is a guide to usual treatment patterns, providing a visualisation of the big picture.

Hofmann also states that although these are a relatively new concept in Australian health care facilities, they have been reported as being used in health care since the mid 1980's. Primarily, Clinical Pathways are intended as an aid to clinical practice by outlining the expected process or 'pathway' of each diagnosis/clinical problem including typical problems, expected

multidisciplinary interventions and outcomes of care. When the patient's care differs from the expected norm, that information is documented in a narrative form. If the patient's plan of care runs the expected course, the norm is presumed and documentation is completed by indicating the achievement of the required outcome on the Clinical Pathway. One of the major benefits of these processes is in the saving of staff time usually taken in recording all the routine and repetitive details of care and treatment in the medical records. Other benefits include its access as a clinical reference tool for accessing information of importance. It can also be used as a template for costing (expected versus actual) and as a reference for communication with patient and family by staff.

The RMH Managed Care Program, utilised a plan of care to provide multidisciplinary guidelines for the coordination of tests, treatments, consultations and patient and family education. They referred to this plan of care as a 'clinical management plan' but is also referred to in the literature as 'care maps,' or 'critical paths'. The Monash Medical Centre in Victoria also trialed a Managed Care program in 1994 citing the Victorian Government's Health Policy and "the severe fiscal retraction of the Health dollar" as the impetus behind the program (Monash Medical Centre 1995, p. 2). It too used multidisciplinary "Managed Care Maps" to "support and prescribe standardised patterns of care and length of hospitalisation for targeted groups of patients". This Managed Care Program was based at a cardiac surgery Pre-Admission Clinic and Early Discharge Services. Outcomes reported as

being decidedly advantageous to both the hospital and the patient primarily because "the managed care approach is an empowering process that prepares customers to make better informed choices"(p. 6).

The Program evaluated by this study can also be categorised as a Managed Care program as its aims were to deliver multidisciplinary, customer focused coordinated care through the implementation of a pre-admission clinic and the provision of early discharge services. Although there are some disadvantages in the use of clinical pathways such as prescriptive ordering of tests and the inability to adequately incorporate and document patients' individual psychosocial needs (Falconer, Roth, Sutin, Strasser et al, 1993), the use of Clinical Pathways was considered particularly advantageous in this study by their ability to assist medical staff with guidelines for testing and assessment, and in determining costs and efficiencies. There are many examples of the successful utilisation of Clinical Pathways in the provision of care to cardiothoracic and psychiatric patients, but little published literature regarding services such as pre-admission clinics and early discharge programs.

Pre-Admission Clinics

Pre-admission clinics were initially devised to facilitate the successful utilisation of day surgery units, but have progressively been implemented for other inpatient services such as elective surgery, orthopaedics, paediatrics, cardiac and eye surgery.

Since the 1970's there has been a dramatic increase in day case surgery, particularly in Canada and the United States. General reasons attributable to the increase of these services in North America has been related by Davis (1987) as being multifactorial. The principal factors are reported as being that all participants are able to benefit, it is a more convenient way of receiving minor surgery and it is just as safe as conventional admission. Natof (1980) supported the safety aspect of day surgery when reporting a study of over 13,000 surgical patients treated on an outpatient basis which indicated the incidence of haemorrhage was lower in outpatients than those patients treated as inpatients. This was attributed to the high level of nursing and medical observation skills required of the staff providing this type of health care service. More specifically, however, United States health care directors such as Lepczyk, Hunt-Raleigh, & Rowley (1989) and Noon & Paul (1992) attributed the growth in popularity of day surgery to the demands for more efficiency in health care delivery by regulatory agencies, third-party payors and other health insurers. However, this method of delivering health services places time constraints on health care institutions to adequately assess patients' suitability for anaesthesia and prepare them adequately for surgery.

Pre-admission clinics are one means of addressing this problem and have been successfully implemented in North America and the United Kingdom for over twenty years, and are now largely considered routine to elective surgery admissions (Miller, 1988; Muldowny, 1993; Bruce, 1993).

In 1984, Levesque, Grenier, Kerouac and Reidy (1984) described the use of pre-admission clinics for delivering patient education and pre-admission testing, as commonplace. Haines & Viellion (1990) described the implementation of an orthopaedic pre-admission clinic established in a 24 bed research oriented orthopaedic hospital in Indiana (USA), and succinctly explained the impetus for their pre-admission clinic as relating to prospective payment, and the inefficient practice of admitting surgical patients 1-2 days before surgery for medical workup, laboratory testing, and patient teaching.

Primarily pre-admission clinics have gained popularity because of the many tangible benefits to the institutions, particularly by their ability to reduce inpatient length of stay and thus improve hospital bed utilisation. This represents significant associated financial savings.

The trend to increasing consumer awareness and customer focused quality improvement principles has also highlighted less tangible benefits such as increased patient satisfaction with hospitalisation. Primarily, increased patient satisfaction is attributed to the efficiency and individualised nature of the service programs, and the continuity of patient/nurse contact (Haines and Viellion, 1990; Lichtenstein, Semaan & Marmar, 1993).

Hathaway & Powell (1987) compared a control group with inpatients for major surgery who received a pre-operative visit from a theatre nurse. This nurse assessed the patient, gave information, education and instructions and identified patient problems. They determined that in the pre-assessment group both patients and nurses were more satisfied.

Pre-admission clinics are used not only for assessment for day surgery. They have also been implemented in other areas of health care such as gerontology and paediatrics and have made the same financial gains. Gerontologists, particularly in the USA, have used pre-admission assessment as a method for screening patients awaiting admission to nursing homes and as a basis for the allocation of appropriate community based care as described by Lathrop, Corcoran & Ryden (1989). Gerontological issues in all facets of care are gaining more attention as western countries support increasingly ageing populations.

Paediatric research has also centred on pre-admission preparation of children prior to surgery as a means of allowing some forms of surgery to be attended as day surgery. This reduced length of stay not only contains costs, but it also reduces the period of time children are separated from their parents and their families. This results in reduced anxiety in children, and fewer post operative behavioural problems (Spicher & Yurel, 1989).

Other areas utilising the concept of pre-admission assessment include Intensive Care Units (ICU's), Intensive Nursing Units (INU'S) and Coronary Care Units (CCU's). Sutcliffe & Ridder (1984) established a pre-admission teaching program prior to elective admission to ICU so as to assess potential patient needs and to orientate patients to the unit.

As previously stated, this North American embrace of day surgery in conjunction with pre-admission clinics has been documented as having evolved as a direct influence of health funding agencies' expectations of

increased efficiency in relation to funding. Although there is little Australian literature relating specifically to pre-admission clinics, overseas studies emphasise the benefits of applying these concepts to health care services particularly from the economic benefits to be gained for funding agencies.

Common components of a Pre-Admission Clinic

An analysis of literature describes common elements for successful pre-admission clinics in large hospitals. Haines & Viellion (1990) describe an orthopaedic pre-admission clinic where pre-admission attendance took place 10-14 days prior to surgery and took approximately 4-5 hours. Patients were seen by an internal medical specialist and a nurse patient-educator. The spouse or a relative was encouraged to attend with the patient so as to provide support and encouragement in the recovery process by reinforcement of patient education. The role of the nurse-patient educator was to provide nursing assessment, to act as coordinator, to schedule patient appointments for admission, medical examination, x-ray and to provide education in verbal, written and audio visual format. Compilation and distribution of patient data to the various departments to facilitate communication between the support team members was also a nursing responsibility. Social service referrals were made if necessary.

A screening record was developed to serve as a concise, easy to use document and was available to all relevant staff to encourage continuity of care. Evaluation of this program included such data as cancellation of surgery after admission, and efficiency of the service as perceived by other staff members, for example anaesthetists. Patient satisfaction was reported as being difficult to evaluate because the authors were unable to obtain a validated tool for measuring learning or anxiety levels following pre-admission

(Haines & Viellion 1990). Evaluation of length of stay was not included in the study.

Noon & Paul's (1992) summation of an USA pre-admission clinic is described as having been implemented as a result of economic pressure by "regulatory agencies" and was based upon "meeting patient/customer needs, interest and convenience" (Noon & Paul, p. 112A). The authors detailed the following processes in defining what they considered to be important aspects of a pre-admission clinic including; centralised scheduling; nursing assessment and risk screening; patient education; discharge planning; collaboration and networking or "marketing" the service with other hospital staff.

The program also allowed for follow up post discharge contacts, such as telephone calls or post hospitalisation visits which the authors asserted authoritatively to be nursing responsibilities.

Patient satisfaction was highlighted as a crucial benefit to the success of the program because "when customers perceive the staff as competent and the program coordinated, they are more likely to be satisfied with all the services received during their stay at the hospital" (p.112H)

Le Noble (1993) describes and critiques the services provided by various Canadian pre-admission clinics including The Victoria General Hospital, whose first of three was established in 1978, (two other pre-admission clinics have been implemented within the hospital for different services since this time); the Royal Jubilee Hospital pre-admission clinic

established in 1986; and The Royal Columbian Hospital pre-admission clinic, established 1989. To summarise, this Canadian service included: clerk interviews to ascertain patient demographics; nursing interviews and pre-operative assessment; diagnostic pre-operative testing including blood tests, electrocardiographs (ECG's), radiological and other forms of routine pre-operative testing, screening of test results for the early detection and treatment of abnormalities; discharge planning; patient teaching and support; anaesthetic consultations and medical examinations.

Smeltzer and Flores' (1986) description of their hospital's pre-admission clinics was similar in process but also emphasised the need for discharge planning to be initiated at pre-admission. The assessment included a physical examination by an anaesthetist, laboratory testing, ECG and chest x ray. Clerical staff interviewed patients to establish demographics and to arrange and finalise admitting schedules. An important aspect of this study was the Pre-Admission Clinic's coordination by a Registered Nurse whose role involved interviewing patients and identification of patient problems, teaching and discharge needs. The coordination of these services by a nurse, while briefly alluded to in this study is more strongly emphasised in Null's 1994 United States study which describes the nurse coordinator's role as imperative to the overall effective functioning of such a program within a large teaching hospital. Specifically, the coordinator is charged with streamlining pre-admission processes and paperwork, increasing the number of patients adequately prepared for surgery, establishing a seven day patient

contact "lead time" (for provision of support) and for developing and maintaining multidisciplinary relationships (p.1051). Phipps (1994) emphasises more decisively the role of the nurse in this setting. She describes a large United States University Hospital which specifically employed a Clinical Nurse Specialist (with a Master's degree in Nursing) in this role so as to utilise the nurse's skills in clinical practice, education, research and leadership. The anticipation being that the nurse would "be in a strategic position to initiate this innovative program and bring about change in the institution" (p.24).

In summary, consistently established protocols of pre-admission clinics include: clerical interview; nursing and medical assessments; anaesthetic consultation if required; pre-operative testing, especially ECG, blood tests and chest x-ray; discharge planning; post discharge follow up patient support and nursing coordination of all of these processes. In almost every description of these clinics the most important aspect is deemed to be patient education because of the implications associated with allaying patient anxiety.

Patient education

Over many years researchers such as Schmitt and Wooldridge (1973) have demonstrated that being hospitalised for surgery elicits anxiety in most patients to some extent. The ease with which patients adapt or cope with the hospital environment has been found to impact on the levels of anxiety experienced. The well documented State Trait Anxiety Inventory (STAI)

(Spielberger, Speilberger, Gorsuch & Lushene, 1970) has been used repeatedly to support this concept by measuring patient anxiety at different times in the hospitalisation episode including several days prior to, at, and after admission, and before and after surgery.

Johnston (1980a) conducted a gynaecological study using the STAI and found patients registered their highest scores on an anxiety inventory two days before surgery. In a further study of the same year Johnston (1980b) assessed 23 surgical patients pre operatively and reported the highest anxiety levels were found on the morning of admission with a decrease by the evening of admission, although the difference was not statistically significant.

Research into the educational preparation of patients for anxiety provoking events such as surgery, was begun in the early 1970's by Jean Johnson who asserted that accurate expectations about aversive stimuli would decrease distress during threatening situations (Johnson, 1973). Pre-operative teaching refers to the provision of information about what will happen before, during and after surgery. Extensive research has documented the concept as a safe and effective means of improving post-operative outcomes for surgical patients. This is important as each patient's needs are unique, incorporating both physical and psychosocial aspects of care. Furthermore, pre-operative anxiety is known to retard patients' recovery by reducing psychological well being and cooperation with self-care activities (Cohen and Lazarus, 1973; Kapnoullas, 1988).

For more than 30 years nursing research has demonstrated that well prepared, and thus less anxious patients, have decreased post operative pain, reduced length of stay, less post operative anaesthetic complications, and a quicker return to normal activities (Dumas & Leonard, 1963; Lindemann, 1973; Cook, 1984: Haines & Viellion, 1990). Other studies have demonstrated the benefits of giving procedural information that instructs patients on self care measures, for example deep breathing, coughing and turning. These benefits include; reduced length of post operative stay (Lindemann & Van Aernam, 1971; Zeimer, 1983); reduced physical complications (Carrieri, 1975; Finesilver, 1978; King & Tarsitano, 1982); reduced analgesic requirements (Haywood, 1975; Johnson, Rice, Fuller & Endress, 1978; Lindemann & Van Aernam, 1971; Wilson, 1981); and reduced patient anxiety (Felton, Huss, Payne & Srcic, 1976; Hjelm-Karlsson, 1989; Schmitt & Wooldridge, 1973; Wells, 1992; Zeimer, 1983). In a meta analysis of 49 studies, Devine and Cook (1983) concluded that brief psychoeducational interventions reduced hospital stays by 1.5 days to 2 days.

There are many reported North American studies related to pre-surgical patients' anxiety but little Australian research is documented. An Australian quasi experimental study conducted by Richardson and O'Sullivan (1991) evaluated the effect of pre operative interviews on patient's anxiety levels. The researchers recommended in their conclusions that "if peri-operative care is to meet patients' needs and remain within the domain of

nursing, nurses should introduce a program of pre-operative interviews with patients scheduled for elective surgery." (p.5)

More local research was conducted within the study Hospital by Inglis (1989) into the effects of pre-operative teaching on the self reported levels of anxiety of 28 patients undergoing elective surgery for cholecystectomy or herniorrhaphy. This experimental research determined that pre-operative teaching did assist in reducing pre-operative anxiety.

Although documentation of the benefits of patient education in relation to patient anxiety has been reported for decades (Lindeman & Van Aernam 1971; Devine & Cook 1983), there are many reasons why barriers have evolved to the implementation of appropriate patient education.

Barron (1987) documented a report based at a United States hospital which conducted a five month hospital audit which indicated that more than 60 percent of surgical patients had received no documented pre-operative education. This was attributed to patients being admitted to hospital on the same day of surgery, and also to the fact that "patient anxiety levels tend to be so high that it is doubtful they absorb any teaching that might be given" (p.1690).

Lipetz, Bussigel, Bannerman, and Risely (1990) in their study of barriers to patient education reported that 81% of the sampled nursing staff believed that patients were not in hospital long enough to be given adequate information and/or instructions. The sample for this study was comprised of relatively short stay patients with the average length of stay being four days.

Lepczyk, Hunt-Raleigh and Rowley's United States study (1990) conducted on 72 pre operative cardiac patients, was designed to determine the most efficient and useful timing of pre operative education with the specific aim of reducing patient anxiety. Their results elicited unexpected findings in that there appeared to be no difference whether patients receive information a week prior to surgery or the day before surgery. They concluded that a mutually convenient time was the best time.

The benefits for patients receiving pre-operative education, such as reduction of anxiety, reduced length of stay, and improved post operative outcomes, are the major factors which determined the provision of nursing staff to provide appropriate patient education for the Patient Management Program. The format in which patients would receive this information was considered and literature reviewed. It was determined that in this study, education would be delivered in both a written and verbal format to provide both sensory and procedural information as advocated by Leventhal & Johnson, (1984). These researchers described sensory information as that which focuses on what the patient will see, feel, hear, smell or taste, whereas procedural information is a description of what will be done to the patient and for the patient. Their self regulation theory is the basis for research on preparatory teaching and one of the central concepts of the theory is the 'schema', a mental image based on prior experiences.

Educational booklets are considered by some to be an important component in the provision of patient education and information. Ley,

Bradshaw, Eaves, & Walker (1973) concluded from their study, that patients forget half of what they are told within five minutes, however, they recall much more of the information if they are given written instructions in conjunction with verbal presentations. This is also supported by Rice & Johnson (1983) who, in their experimental study of pre-admission education, provided booklets to 130 patients. The booklets were devised primarily to provide patients with both sensory and procedural information as reinforcement in a written format for the patient to read after personalised information session with the pre-admission clinic nurse. The findings of this study demonstrated the groups of patients who received pre-admission teaching by booklet required significantly less teaching time in hospital than patients who received no pre-admission teaching.

Garvin, Huston & Baker (1992) conducted nursing research in a large United States hospital to determine how nurses delivered information to cardiac patients undergoing cardiac catheterisation. Several interesting points were raised during discussion of findings including the fact that nurses quite often did not have enough time to deliver appropriate information in the ward setting, and the information which was relayed was most often procedural. Furthermore, the study identified that some patients did not want to receive information.

Rice, Mullin & Jarosz (1992), randomly assigned cardiac surgery patients to either a pre-admission self instruction or a post hospital admission instruction group in relation to therapeutic exercises. Both groups tended to

use less pain medication and had a decreased length of stay, but the pre-admission self instruction group reported higher positive mood scores, performed correctly significantly more exercise behaviours, and required less teaching time following hospital admission.

Earlier research by Miller (1980), labelled certain patients who sought to diminish psychological impact by avoiding information as "blunters". Conversely, patients were labelled "monitors" if they tried to seek out information. These findings led researchers such as Barsevick & Johnson (1990) to conclude that there is a need to tailor the type and amount of information according to the coping style of the patient

Other aids documented as assisting in preparing patients for surgery include such psychological preparation therapies as relaxation or stress management. Pre-admission clinics such as that described by Wells (1981) successfully used relaxation therapy on certain surgical patients. Jackson & Maggard (1986) used similar techniques in a large North American Outpatient Surgery Centre.

Overall, patient education prior to surgery is a well documented concept in alleviating patient anxiety. The format may be verbal or written although the timing of education remains contentious. What does appear to be clear, however, is that patients needs should be established and delivered accordingly, in a non-threatening, relaxed environment. The provision of adequate patient education and preparation contributes to increased patient

compliance with care, increased patient satisfaction and earlier discharge from hospital.

Discharge planning

The efforts by Federal, State and private health care agencies to control costs has led to health care administrators engaging in efforts to reduce costs. This has led to some practices which seek to discharge patients from hospital sooner than was previously thought possible. One of the major ways to facilitate discharge sooner is to plan the patient's discharge more efficiently, and effectively. The term 'discharge planning' is a well established concept in nursing and is acknowledged as being fundamental to quality patient care and a necessity for the successful separation of all patients from hospital. It has been defined by Smeltzer and Flores (1986, p. 19) as:

> the professional activities that prepare the patient and family for the transition from hospital to home. The activities include assessment of the patient's and/or family's adjustment to and treatment of the disease and determination of need for referrals to community agencies or placement in appropriate facilities.

Discharge, like all other processes of hospitalisation impacts on hospital costs and patient outcomes (Farren, 1991). The economic rationale for planning patient discharge in an effective manner is clearly evident in that

prolonged hospital stays can be decreased or prevented, thus reducing hospital costs and allowing improved bed utilisation.

In the United States, legislated programs, such as Medicare and Medicaid, have influenced not only patients' eligibility for admission to hospitals, nursing homes, extended care and home health services (Larkin, 1989) , but also the appropriateness of patients length of stay. A decade ago, the United States Professional Standards Review Organisation (PSRO) objectives required assurances that services rendered were medically necessary and appropriate (Rasmussen 1984). More recently, Australian health care reforms have followed suit. Funding methods such as DRG/Casemix funding exert similar pressures on Australian institutions to justify admissions and length of inpatient stays. In response to this phenomenon, heightened consumerism and litigation concerns have forced health care institutions to review processes involving discharge planning to avoid increased morbidity rates associated with post discharge complications Authors such as Colbourne (1993) discussed the importance of discharge planning from a legal perspective. She asserts that discharge planning is a plan to discharge a patient from hospital "in such a way that it will in no way disadvantage them or their carer or place them in a situation where their well being, safety or potential for recovery are compromised" (p.33).

Berkman, Bedell, Parker, McCarthy et. al (1988) also alluded to the inherent legal implications of poor discharge planning in their study which compared pre-admission discharge planning by social workers with post

discharge screening and assessment. They concluded that patients screened by social workers at pre-admission for possible barriers to discharge reported better home management and increased patient satisfaction.

The process of discharge planning, however, has consistently proved difficult to implement for a number of reasons. Smeltzer and Flores (1986) contend that the major reasons for poor discharge planning include: the acuteness of the illness taking precedence over discharge planning; the multiple transfers of the patients within the hospital system reducing accountability and the inconsistency of skills and knowledge amongst the nursing fraternity.

Cook & Alley (1992, p. 28) surveyed twenty American hospitals which revealed that "a lack of discharge planning was the most frequently reported reason for failure in the discharge system". They indicated the implications of this study related not only to costs and inefficiencies, but especially to the liability and legal factors associated with malpractice suits for poor outcomes following early discharge.

Closs & Tierney (1993) cite gerontology as representing an especially important area for adequate discharge planning to be implemented. They view gerontology as becoming an increasingly expanding area of regard in view of the ageing population, an issue which will continue to expand based on population trends in industrialised countries. Australian statistics reflect this opinion. Davis & George (1988) analysed the opinions of various experts in the field of health and epidemiology and cite Erlich (p.270) who asserts

"there is a 'remarkable' agreement between overseas findings and almost all the local studies in respect of the health status of the aged." Furthermore that by age 75, some 65 per cent of people suffer one or more chronic illnesses, of which two thirds are limiting, consequently, they occupy a high proportion of hospital beds. It can be deduced therefore that in relation to surgery, planning each stage of the process including discharge planning, reduces the potential for post discharge morbidity in this population. The importance of adequate discharge planning for all patients and particularly for the elderly, will become more important to health care institutions as the population continues to age.

Collaborative discharge planning, early discharge programs, and post-discharge domiciliary care have in recent years, increasingly gained popularity because they contribute to the reduction of length of stay and morbidity rates associated with hospitalisation. Haddock (1994) studied the collaborative discharge planning of two groups of cardiac surgery patients, the experimental group was co-managed by nursing and social work departments. She found the length of stay for the experimental group was shorter, patients were more satisfied, had fewer readmissions, and received a higher rate of indicated post discharge services than the control group which was managed by medical staff only. Studies such as American Nurse Researcher Farren (1991) who's experimental research tested the effects of discharge planning on 432 medical patients had a reduced length of stay of 0.447 days, and Boone, Coulton & Keller, (1981) had previously

demonstrated a reduced length of stay of 0.62 days in 371 orthopaedic patients.

The concept of "early discharge" planning as opposed to the general concept of discharge planning, gradually evolved and is a contentious issue between health disciplines, particularly between medical and nursing staff. Midwives particularly, have exerted pressure on health administrators to recognise their expertise in the care of obstetric and gynaecological patients and to meet the demands of women to be discharged 'early'.

As a result of economic pressures and discharge programs the reduced length of stay has merged the concepts of discharge and early discharge. Even today, the term itself cannot be clearly defined, as its context may be perceived differently by hospital staff and patients, and indeed between hospital staff. Essentially it refers to patients' being discharge from Hospital before medical and/or nursing treatment is completed.

One of the most contentious issues in relation to early discharge lies in the legalities inherent in the duty of care of the institution. Without adequate post discharge support, the potential for morbidity may increase. A legal discussion by Cushing (1989) recognised the factors that contributed to post discharge complications in patients who were discharged "early". Particularly, these were; lack of assessment and planning for discharge, and moreover, what was deemed to be poor communication between health professionals, both within the hospital, and between hospital and community.

Communication between community and hospital concerning patients, and particularly in relation to discharge, is becoming an increasingly more important consideration. Continuity of care has been acknowledged as being more effective when discharge planning and post-discharge care involves discussion between General Practitioners (GP's) and the hospital. Research undertaken by Balla and Jamieson (1994) focused on assessing the communication between hospital medical staff and GP's and found a general lack of trust on both sides owing to structural and perceptual problems. Communication was also found to be very poor with very little use of GP's knowledge or expertise. Closs and Tierney (1992) reviewed three decades of relevant literature and verified these factors, adding the concept of inadequate discussion of discharge planning with patients and their carers.

Farren (1991) reviewed and assimilated recent health care literature and determined three broad categories of activities based on assessment of patient needs that are generally accepted as the main components of discharge planning. These are: patient and family teaching; coordination of informal support; and formal referral to community agencies. The health professionals who are best qualified and most suitable to administer these components is another cause of interdisciplinary debate. Rothman, Moriarty, Rothman, Silver, et al. (1994) established a home care protocol for early discharge of patients with hip and knee arthroplasties. A specially prepared registered nurse was employed from the hospital-based home care agency to coordinate the transitional care program and provide the direct nursing care in

the home environment. This study was based on the work of Brooten, Brown, Munro, York et al. (1988) whose series of randomised clinical trials in different groups of patients tested a model of transitional nursing care. This model used nurses with advanced practice training utilising measures of cost and quality. The original work was designed to discharge patients early from the hospital by substituting a portion of hospital care with a comprehensive program of transitional home follow-up care provided by nurse practitioners. The model was tested with babies of very low birth weight, the elderly and Auto Immune Deficiency Syndrome (AIDS) patients. Post discharge contact and support was maintained through home visits, telephone assessment and monitoring patients' health status. Evaluation of these works specifically aimed at gathering outcome data after discharge to determine the effectiveness of the transitional model, for example readmission, complications, costs to the family and other criteria.

The importance of works such as these is asserted by Munro (1994) as being the demonstration that nurses can provide quality care at reduced cost with improved patient outcomes.

The concept of support referred to in these examples may be both formal and informal. Telephone follow up support is becoming a more common component of formal post discharge support. Burden (1992, p. 259) discusses the use of telephone support after ambulatory (day) surgery, and deems it to be integral to post discharge follow up because it allows the nurse to assess the patient's level of recuperation and evaluate the care provided.

She also cites the American national standards of care, improvement of quality of care, and reduction of the facility's liability exposure as other reasons why such contact with the patient is a nursing responsibility. Furthermore, she states that "...next day telephone calls are nearly universally accepted in ambulatory surgical programs throughout the country as a typical standard of care").

In a similar context, Honish, Riviera & Shattler, (cited in Whedon,1995) discuss a United States Cancer Center in California, as using telephone follow up calls not only for post discharge patient support, but also as a form of pre admission assessment. This telephone support is determined as facilitating the patient journey through the hospital system and a quality assurance patient satisfaction survey indicated that patients positively viewed nursing care and services provided.

A Canadian grounded theory study of early discharge, as perceived by eight post partum women was conducted by Hall & Carty (1993). Available support was determined to be one central factor to their motivation to participate successfully in an early discharge program.

There are many examples of effective early discharge programs, including an Australian multidisciplinary early discharge program for orthopaedic and surgical patients (Colbourne, 1993; Connolly, 1991), and a British gynaecology program by Taylor, Goodman, & Luesley, (1993). However, previous studies which had attempted to evaluate and identify outcomes associated with the effectiveness of both organisational and patient

indicators have "produced results which are conflicting and inconclusive" (Haddock, 1994,p.249). The organisational indicators highlighted are concepts such as: length of hospital stay, readmission rates, and reimbursement based on documentation (Farren, 1991). Patient indicators have included concepts such as: effectiveness of communication (Bull, 1994), provision of services (Taylor, Goodman, & Luesley, 1993) and participation in decision making.

Taylor, Goodman and Luesley's (1993) research on early discharge of surgical gynaecology patients reflected other previous similar studies highlighting positive patient responses to such programs especially the aspect of support from domiciliary nursing.

In summary, discharge planning is becoming an increasingly important aspect of hospitalisation because of the economic and legal implications associated with discharging patients from hospital. To discharge patients without ensuring adequate community support may prove to have no benefits if morbidity rates increase. For these reasons early discharge must be well planned and provide appropriate post discharge support for patients if it is to provide benefits to both patients and the health service.

The difference between the concept of 'discharge' and 'early discharge' is becoming blurred as technology and economic pressures contribute to ever increasing reduced length of stay.

Linking Pre-Admission Clinics with Discharge Planning

While the literature reveals many examples of Pre-Admission Clinics and Early Discharge Programs, there is a dearth of literature that report a combination of both programs. Smeltzer and Flores (1986) conducted a study in which a pre-admission discharge planning program was designed to incorporate discharge assessment and planning prior to the patient being admitted to hospital. Risk factors were used to identify patients needing discharge planning services. The study concluded that information gathered before patient admission could identify the need for resources required for discharge planning.

Walkenstein (cited in Whedon 1995, p.148) refers to nursing assessment, education and discharge planning at pre admission for patients undergoing major breast surgery at the Fox Chase Cancer Center in Philadelphia, USA. This resulted in patient discharge after 24 hours post mastectomy and brought recognition and praise from patients and hospital staff in its success at "keeping the cost of health care at a minimum without compromising quality".

Claudia Coulton (cited in Willinganz, 1984, p.3) notes that "there are very few programs for pre-admission discharge planning and that those in existence usually are pilot or experimental in nature". Little Australian literature has been identified although several new or pilot programs have recently been initiated. Sinclair (1994) describes a perioperative study in Liverpool Hospital, Sydney Australia, in which pre-admission preparation of

patients for elective surgery was undertaken. Although this program did not include post discharge domiciliary care, it did encompass individualised discharge planning and liaison with community health care services, such as the General Practitioner. One of the major factors emerging in the assessment of such programs is the utilisation of quality assurance principles in determining patient satisfaction.

Quality Assurance and Patient Satisfaction

The main aim of quality assurance programs is to assess, promote and improve customer satisfaction and is therefore an applicable concept in a service industry such as the health system. Unfortunately, quality assurance has traditionally focused on identifying poor outcomes such as morbidity and mortality where explanations are sought after the fact. In the measurement of quality of care, however, quality is an intangible entity, difficult to measure and perceived differently by different people. Nonetheless, the evaluation of the quality of health care must be determined for a variety of reasons including public health policy reforms and purchaser demands (Davies, Doyle, Lansky, Rutt, Stevic, and Doyle 1994). Predominantly evaluations are carried out by professional researchers, but the use of outcome measures to determine patient perceptions is becoming more usual. Outcomes refer to the result of a process therefore a good outcome is a result that achieves the goal of the process.

In 1981, French predicted "the inclusion of patients' objective and subjective changes in health status, his knowledge and understanding, his perception of his ability to cope and his satisfaction" (p 7). She described this as a reaction to the growing tendency for query, complaint or litigation, as a way of raising professional standards, and as a weapon in arguments about priorities in budgeting and expenditure. More than a decade later the concept has taken on more focused aspects. Marks (1993) asserts the view that patient feedback is not only an important indicator of treatment outcome, but it also predicts certain patient behaviours such as utilisation and compliance with care, and continuity with the provider. Moreover, he suggests that measures of personal evaluation are as robust in terms of reliability and reproducibility as physiological and other conventional medical measures. Various instruments have been used to measure patient and staff satisfaction generally in an informal evaluation. The main focus, however, of such evaluations have routinely been related to hospital benefits rather than from a customer focus. These attitudes are gradually changing with continuous monitoring of programs, and the integration and coordination of patient related medical and nursing data.

In 1994 a major United States document on outcome assessment in clinical settings was published by the directors of five major health outcomes assessment programs (Davies, Doyle, Lansky, Rutt et al., 1994). The driving philosophy of the authors was the belief that health care should be patient centred and that the patient is the best judge of outcomes. Reports such as

this demonstrate the growing importance of setting outcome measures to evaluate customer satisfaction by pilot programs such as the current study, and as a form of ongoing assessment to all aspects of health care.

Interestingly, Muldowney (1993) who documented the piloting of a major Pre-Admission Clinic in Tennessee, United States, firmly asserted a customer focus philosophy and identified physicians and their staff as their major customers, primarily because "gaining their acceptance was crucial for the clinic to succeed" (p.1184). This statement demonstrates the importance of interdisciplinary communication in establishing such clinics.

Similarly, Anderson and Helms (1994, p.64), in a discussion of quality improvement in discharge planning, express concern regarding the results of their study which examined the discharge planning communication between health professionals (n=300). They state that "communication between multiple health care providers responsible for coordinating and delivering care to the same patient is a 'system' level problem which to date has generally been overlooked".

The concept of quality improvement is becoming an important guide in determining the needs of patients and staff in the delivery of quality health services.

Methodological Issues

Most evaluations of pre admission clinics and early discharge programs in the past have consisted of quality measures and descriptive evaluations. The importance of comparing previous works with current ones is evident in the

need to justify new practices and ensure that improvement has occurred. However, when instituting a new program into a large institution such as a public teaching hospital, there are many constraints resulting in an inability to control extraneous variables. Because of these factors, the ability to test for a causal relationship with any vigour is questionable. Therefore, a feasible and appropriate method of delivering improvements or change in patient populations can be achieved with descriptive evaluations. Burns & Grove (1987, p. 38) justify the validity of descriptive evaluations as " a means of discovering new meaning, describing what exists, determining the frequency with which something occurs and/or categorising information". Furthermore, they go on to explain how descriptive studies provide the knowledge base needed to conduct correlational, quasi-experimental and experimental studies.

In discussion pertaining to descriptive study designs, Burns & Grove (1987, P. 243) cite examples of typical and valid descriptive studies such as Gill White & Anderson (1984), and Flaskerud (1984), both of which while lacking generaliseability and control are of value to the nursing fraternity because "they provide greater delineation of the phenomenon before causality can be examined."

Similarly, this study lacked control over many extraneous variables related to hospital protocols such as costing issues, overtime data and morbidity data collection.

Summary

The literature is replete with examples of pre-admission clinics and conclusively demonstrate the benefits these services offer not only for patients, but also for health care institutions in economic terms.

In regard to patient care, pre-admission clinics streamline and improve the quality of patient care especially in relation to day case and short stay surgical patients. This is achieved by allowing assessment of patients' suitability for anaesthesia and surgery prior to admission to hospital and thereby reduces inappropriate admission and facilitates improved efficiencies in bed utilisation. The provision of individualised pre-operative education reduces anxiety, promotes compliance and contributes to reduced inpatient length of stay and hospital costs.

Discharge planning at pre-admission is increasingly gaining importance in identification of obstructions to discharge. Similarly, early discharge programs have been demonstrated as reducing length of stay, costs and post discharge morbidity whilst promoting compliance and increasing patient satisfaction with hospitalisation. Post discharge support and continuity of care must be strong features of such a program so as to avoid morbidity and readmission.

The literature also indicates that the coupling of pre-admission and early discharge programs has not been well explored although there are tangible benefits in identifying a patient's suitability for early discharge before admission and the planning and facilitating of early discharge. Education,

support and appropriate discharge planning can be initiated before hospitalisation thus promoting reduced patient anxiety, continuity of care and patient compliance.

The use of a descriptive evaluation study design is demonstrated as being an appropriate methodology because of the lack of control over variables within large institutions and the need to provide further delineation of the phenomenon being studied.

CHAPTER THREE

The Patient Management Program

Conceptual Framework

Several theoretical perspective's for pre-admission clinics are advocated in the literature. Lathrop, Corcoran and Ryden (1989) advocate Newell and Simon's theory of information processing (1972), which describes problem-solving behaviour as an interaction between a problem solver and a task because specific subject matter knowledge as well as general problem solving skills are required by pre-admission clinic staff. This theory is applicable only when related to pre-admission and was therefore rejected as an insufficiently comprehensive framework for this study.

The stress-coping framework such as that of Lazarus and Folkman (1984) conceptualises how individuals confronted by a stressful situation such as surgery, make a primary appraisal which evaluates its implications for their well being. A secondary appraisal weighs their resources for coping with it and a reappraisal based on new information may alter their original perception. From this, an appropriate coping strategy is determined. This equates closely with the major principles of pre-admission clinics. The patients become aware of impending surgery (primary evaluation) and develop ideas as to implications of surgery on their well being (secondary evaluation). Attendance at a pre-admission clinic prior to surgery provides information and education about their health, test results, surgery and associated risks, normal hospitalisation processes and recovery. This

enables a reappraisal and thus a more informed re-evaluation of appropriate coping strategies is formulated. Similarly, Vogel (1985) reviewed a number of experiments which led to the formulation of a theory which implied that stress related to the inability to cope with aversive or noxious stressors could be disease causing to 'an organism'. Furthermore, and more importantly, the coping mechanisms available to, and employed by the organism determine whether stress is experienced or not.

The theories discussed have expounded coping and avoidance strategies related to stress and anxiety, however, a still more encompassing model of care was considered important to consider the broader aspects of these concepts and to provide an appropriate framework for the delivery of care through the Patient Management Program. Irurita's model of care (1993) evolved as a result of two separate qualitative studies which explored high quality nursing care from patients' and nurses' perspective's. These grounded theory studies, based primarily at the study Hospital, determined that the core problem faced when the transition from person to patient occurred, was that individuality and some control was perceived to be lost. Feelings of vulnerability were experienced and depending on the level of risk to personal integrity, three vulnerability contexts were identified; high, moderate and low. The core process identified for dealing with vulnerability was coined 'integrity preserving'. It was determined that appropriate care interventions, could ward off, or reduce, some of the threats to integrity and as such vulnerability could be reduced. Integrity preserving encompasses four

levels of nursing care; two levels of poor quality care: 'rough hand care' (a causal condition for vulnerability), and 'hard-hand care', and two levels of high quality care; 'firm-hand care' and 'soft-hand care'. 'Soft hand care' reflects patients' perceptions of the highest quality patient care and includes not only such concepts as clinical competence but also recognised attempts to equalise the power imbalance between caregiver and patient. The power balance is achieved by allowing for and encouraging patient independence, providing adequate, relevant information in a timely manner, acting as a patient advocate and the developing of an effective nurse-patient relationship. Hard-hand care and rough hand care, were revealed by the patient data to be expressed in such terms as 'technically competent', 'mediocre' or 'clinical care'. The hard-hand care was generally described as technically adequate but lacking individual attention and the extra dimensions described in soft-hand care.

Soft-hand care was found to be essential for patients in high vulnerability contexts where integrity preserving was most needed. Components especially determined to be important included patient advocacy by nurses, effective nurse-patient relationship, doing little extras to ensure physical and emotional comfort, being empathic and compassionate and being available and dependable. The application of these concepts to the Patient Management Program can be demonstrated most effectively in the relationship between Pre-Admission Clinic nursing staff and patients. The unhurried, non threatening atmosphere of the Clinic, and the fact that Clinic

staff facilitated day to day ward discharge, appeared to promote and contribute to the development of an effective nurse-patient relationship. Nursing staff did not wear traditional nursing uniforms and the Clinic was not decorated in a traditional hospital way: soothing colour schemes were used and patients had access to tea/coffee television and radio. These factors appeared to contribute to reducing the power imbalance between hospital staff and patients.

Other factors which Irurita determined that patients perceived as either facilitating or inhibiting integrity preserving processes, included environmental, organisational and personal factors. Inhibiting factors included ageism, lack of time, lack of continuity and consistency of carer (individual patients having multiple caregivers), lack of coordination and communication problems. Personal attributes of the nurse were seen to either facilitate or inhibit integrity preserving. Family support was seen as a 'facilitating condition'. The Program specifically aimed to overcome inhibiting factors by providing adequate time for patient and nurse communication at pre-admission, and the provision and coordination of nursing services, including assessment, education, phlebotomy services and domiciliary care by the same staff This reduced the number of caregivers to whom the patient was exposed and developed rapport and continuity of care.

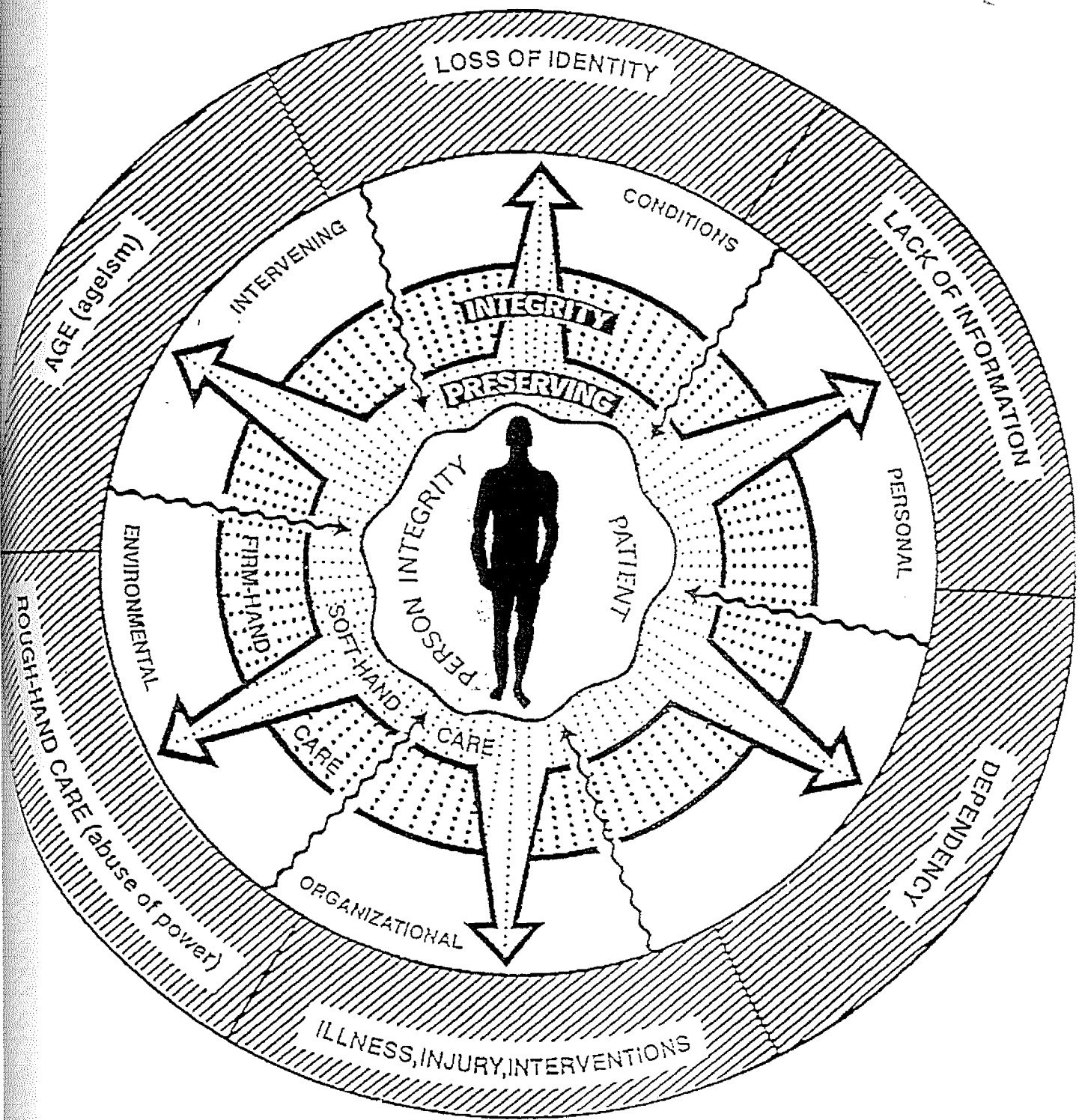
The Program nursing staff were prepared, encouraged and supported, to be independent and flexible in their practice with both patients and staff.

This practice enabled professional advocacy, and the ability to provide those 'little extras' to patients both in the hospital and the community setting.

There are several models highlighted by the literature which may seem suitable for pre-admission clinics. However, the use of Irurita's model of care was considered the most appropriate in the provision of a 'quality' service particularly because it allowed care to evaluated from the patients perception.

The following diagram of Irurita's model of care encapsulates the framework upon which this study is based. (See Figure 1).

Figure 1. Irurita's 1993 model of care.



The Philosophy of the Patient Management Program

The driving philosophy for the Program, was influenced by several factors. These included: the study Hospital's philosophy and framework for delivering patient care; an extensive review of literature which verified the anxiety provoking nature of hospitalisation and surgery and the subsequent effect patient education has on reducing this anxiety, and the study Hospital's quality assurance expectations of customer focused health care delivery.

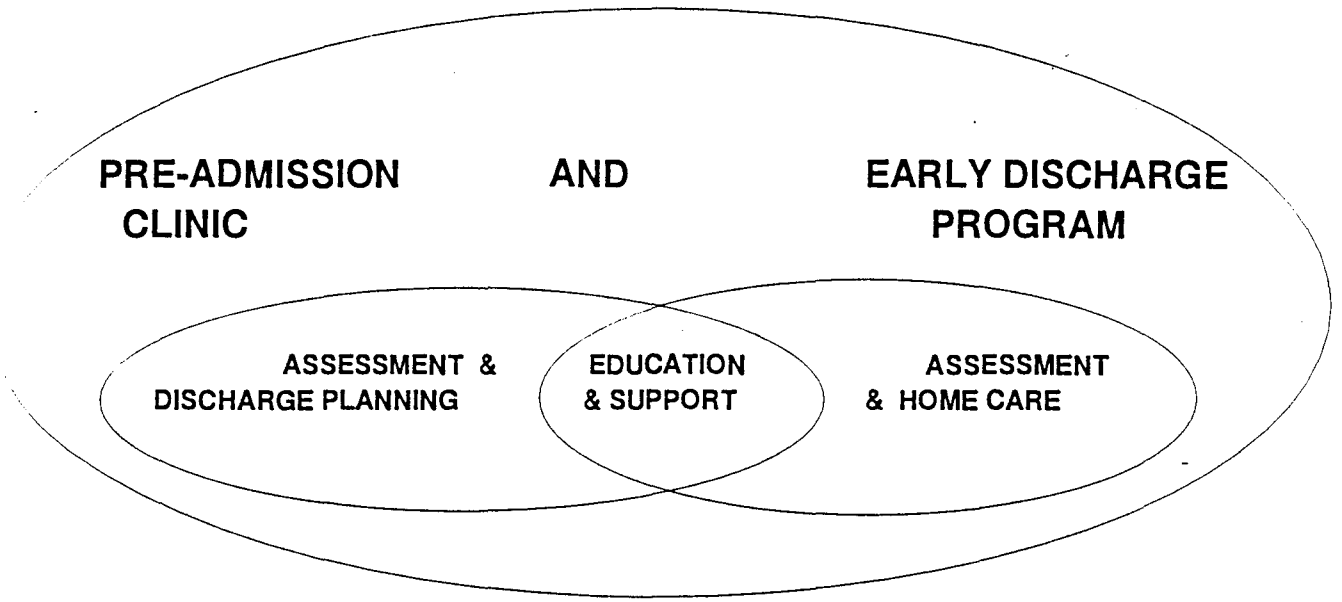
The care delivered by the staff within this Program was delivered with a distinct customer focus. This was demonstrated in several key ways. Firstly, although the patient attended the Pre-Admission Clinic, in all other components of care the staff visited the patients. That is, ward 'courtesy' visits and home visits. Pre-Admission Clinic appointments were staggered so there was very little, if any, waiting time.

The nursing staff employed to assist in the Clinic were seconded from the surgical ward areas and rotated every three months. These nurses were able to function with a high degree of autonomy, and this autonomy and flexibility allowed greater individuality of care with patients. This was consistently reported anecdotally by both the nurses and the patients

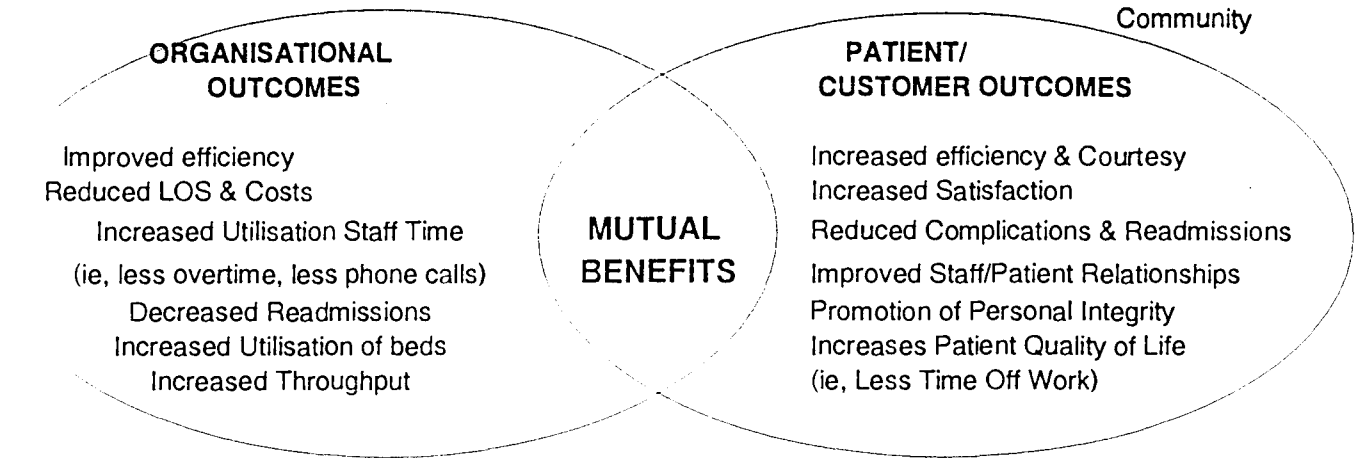
The following figure (Figure 2) demonstrates the philosophical framework of the Patient Management Program, including the main concepts and processes.

gure 2. Philosophical Framework of the Patient Management Program

PATIENT MANAGEMENT PROGRAM



PAC PROCESSES	TOOLS	EDP PROCESSES
ASSESSMENT Nursing Assessment Medical Assessment Anaesthetic Assessment	Professional/Clinical Skills Communication	**ASSESSMENT** Assess Suitability Facilitate Early Discharge Liaison
EDUCATION Medical information Nursing information	**EDUCATION BOOKLETS**	**EDUCATION** Wound care & Assessment Family Education
DISCHARGE PLANNING Assessment for Early Discharge Planning with patient for discharge Implementation e.g referrals initiated.	**CLINICAL PATHWAYS**	**DISCHARGE** Home Visits GP Liaison Community Liaison Hospital Liaison
PATIENT SATISFACTION Advocacy Mediation Liaison	**PATIENT SATISFACTION QUESTIONNAIRE**	**PATIENT SATISFACTION** Advocacy 24 hr telephone support Liaison/Hospital/patient/ Community



The Traditional Processes for Elective Surgery

In most western countries, elective surgery has become a routine process with clearly defined hospital focused objectives. Consultations and hospital bookings are usually achieved through centralised clerical services and admissions to hospital are invariably one or more days prior to surgery. During this time patients' suitability for surgery and anaesthetic are assessed and dependant upon these results, surgery either proceeds, is cancelled, or rescheduled.

Patient discharge has traditionally been arranged only when medical and nursing care is no longer required and when it is convenient to the patient and their family. The economic inefficiency of this practice has become increasingly apparent as public health care facilities strive to reduce costs and meet the needs of increasingly knowledgeable consumers.
The ability to plan discharge at, or prior to admission, is increasingly being recognised as decreasing patient length of stay and reducing expensive and distressing post-discharge morbidity rates. To change these traditional practices required significant changes in hospital processes.

Implementing the Patient Management Program

The implementation of this Program and its services, was a revolutionary change of process in the hospital and required interdisciplinary planning and liaison in order to implement it within the Hospital.

The vital elements of pre-admission services and early discharge programs were persistently demonstrated and have been discussed previously in Chapter 2. To summarise, these included: appropriate pre-operative interview and assessment (Smeltzer and Flores, 1986); medical and/or anaesthetic consultations and diagnostic pre-operative testing (Hathaway and Powell, 1987); screening of test results for early detection and treatment of abnormalities (Noon and Paul, 1992); pre and post-operative patient education (Barron, 1987); multidisciplinary commitment (Muldowney, 1993); adequate discharge planning (Le Noble, 1993) and coordination of services (Null, 1994).

Similarly this study aimed to provide an efficient admission process for elective surgical patients. Patients' admission booking services were decentralised to the Pre-Admission Clinic staff, who were able to make contact with patients prior to admission and arrange Pre-Admission Clinic appointment times, and defer to nursing staff with patient queries. This initial and ongoing point of contact for patients was anticipated as contributing to increased patient convenience and reduction in anxiety.

A plethora of research over the past four decades supported the concept of patient education as an integral part of preparing patients for surgery by relieving patient anxiety, assisting coping strategies, promoting compliance and increasing patient satisfaction with hospitalisation (Johnston & Carpenter, 1980; Vogel, 1985; Richardson & O'Sullivan, 1991). Based on this evidence, specific diagnosis related patient education booklets were

designed to facilitate the process of streamlining information to patients (appendix A). Information required to be given to patients consisted of: admission details; fasting times; pre-operative; intra-operative and post-operative care; and expectations and availability of services and support. This information was delivered in booklet form and incorporated all relevant information into one concise document.

All the changes in the method of admitting patients and delivering education and support, were in keeping with Irurita's 1993 model of care which advocates integrity preserving through soft hand care and provision of information.

Several other documents in use in the hospital were not considered appropriate to the philosophy and working nature of the Program. New, more appropriate documents were therefore devised. An integrated Medical/Nursing Assessment tool (appendix B) was designed in consultation with medical and nursing staff involved in the care of surgical patients at the study Hospital. It was amended from the current medical and nursing documentation and aimed to encapsulate all relevant information required by both medical and nursing staff to adequately assess a patient for surgery and admission to hospital. The document was integrated so as to avoid repetition in medical and nursing assessments and to provide a consistent and complete history, assessment and plan of care, including discharge plan.

Clinical Pathways for relevant DRG's and a General Domiciliary Care Pathway were developed (appendix C) in anticipation of a reduction in paperwork and administration time, and enabled costings to be more accurately determined.

A patient satisfaction survey was considered imperative to the study for two major reasons. Firstly, with no previous patient satisfaction evaluations from similar programs available, it was difficult to ascertain patient perceptions of the services of the program. Secondly, the study hospital encouraged and supported an ongoing commitment to quality improvement in all services provided. A patient satisfaction survey was therefore distributed to the experimental group of patients after discharge (appendix D). The survey was amended from a patient satisfaction survey designed by the staff of a medical discharge program at Royal Perth Hospital several years earlier.

The Early Discharge component of the Program aimed to provide collaborative multidisciplinary pre-admission discharge planning. This facilitated timely discharge and a comprehensive program of transitional follow up care, provided by hospital based nurses in the patients' homes or residences. The same nursing staff who provided pre-admission assessment, education and discharge planning to the patient and their family or support person, also provided inpatient discharge coordination, post-discharge telephone support and ongoing nursing liaison, as well as delivering domiciliary nursing care. This was achieved by running the Pre Admission Clinics every morning and then having rounds on the wards and domiciliary

visits in the afternoon. This ensured continuity of individualised patient care from the first point of contact with the Hospital until the last. This individualisation of care was considered an important component of the provision of patient focused quality care. Abdellah and Levine (1957) and Eriksen (1987) determined through patient satisfaction indicators of nursing care quality, that increased individuality is a key component of delivering health services to patients. Patients consider individuality as high quality, even though it may be in opposition to rigid hospital protocols and policies, and indeed to what nursing staff may perceive to be quality nursing care.

Patient education in both verbal and written format, personalised care to reduce patient feelings of vulnerability, patient satisfaction as the central focus of the institution, and documentation to provide coordination of care are all Program aspects which were supported by the literature and have previously been discussed.

The implementation of the Patient Management Program formed the intervention, that is, the Independent Variable, of the quasi experimental study design used to evaluate the Program.

CHAPTER FOUR

Research Process

This chapter describes the design of the study, variables, setting, and sample and inclusion criteria. The development of the patient satisfaction questionnaire is also described.

Research Design

This descriptive evaluation of a new Program analysed data gathered over a 12 month period, from a cohort of surgical patients who were awaiting admission to the Hospital for elective general surgery. The experimental group were selected by their ability to meet the inclusion criteria. A concurrent prospective cohort of patients who were admitted with the same diagnosis, but who were not part of the Program served as a control (control group 1). In addition, data from a retrospective convenience sample of inpatients from the previous year at the study Hospital was used as a second control group. The second control strengthened the design of the study by controlling for contamination of outcome variables between patients in the experimental group and control group 1, all of whom were hospitalised concurrently.

Comparisons on some outcome measures are made.

Independent Variable

The independent variable in this study was the Patient Management Program as described in Chapter 3.

Dependant Variables

These dependant variables were; length of stay, hospital costs, morbidity rates, throughput and patient satisfaction.

Setting

The study Hospital was a 600 bed tertiary level teaching hospital, located near Perth, Western Australia. The Patient Management Program was located and coordinated from the Pre-Admission Clinic which was based within the surgical ward areas of the hospital to allow for easy access by patients and medical staff.

Inclusion Criteria

This study evaluated adult patients (both public and private) admitted to the study Hospital for elective general surgery who would be categorised post discharge into DRG's applicable to: breast surgery, haemorrhoidectomy, thyroidectomy, laparoscopic cholecystectomy, inguinal hernia repair, varicose vein stripping and ligation. Only those patients living within approximately 50 kilometres of the Central Business District of Perth were included as the Hospital has separate admission protocols for patients outside the

metropolitan area. Non English speaking background patients were not excluded from the study as the Hospital interpreters were available 24 hours a day.

Sample

The sample for the study was one of convenience. The experimental group comprised patients awaiting admission to the study Hospital for elective general surgery and who were deemed by the Program coordinator to meet the inclusion criteria (n=577).

The patients in control group 1 were those patients who met the inclusion criteria but were excluded from the Program for varying reasons including short notice of impending surgery and illness necessitating admission several days prior to surgery (n= 809).

The convenience sample comprising control group 2 were those patients who met the inclusion criteria and had undergone surgery during the twelve months prior to the study from January 1994 to January 1995 (n=1558).

All patients in the experimental group who attended the Pre-Admission Clinic were included in the patient satisfaction survey which was mailed approximately one month post discharge. This also included those patients whose DRG's were not ultimately included in this study (n =775).

Data Collection

The study objectives required the collection of factual data regarding patients participating in the Program including inpatients' length of stay and the process and costs of the Pre-Admission Clinic and the Early Discharge Program.

An appropriate method for collecting and collating data was necessary due to the large volume of data to be collected and the need for rigorous research protocols. A data collection form was devised and used (appendix E) which incorporated funding body data collection requirements (appendix F) and other appropriate data. This included demographic, outpatient, domiciliary, and inpatient data. An electronic data base was utilised to store discrete quantifiable data. The data base software application "ACCESS" was acquired and a computer programmer/analyst employed to design an appropriate program. Data recorded manually on the data collection tool was transferred to the data base by the researcher.

Satisfaction Questionnaire

Although patient satisfaction has been discussed in the literature as an important outcome measure, no suitable patient questionnaires were readily identified from the literature. A suitable satisfaction questionnaire was subsequently identified as having been used at Royal Perth hospital in a previous Medical Early Discharge Program. With the approval and assistance of Royal Perth Hospital staff, the questionnaire was amended by

the researcher and then reviewed by both Registered Nurses in the clinical setting, and nursing academics in the area of questionnaire design, until broad consensus on relevant content was ascertained. After general agreement was reached and prior to data collection, the survey was piloted and as a result several changes were made.

The survey, including a letter of explanation (appendix G), was mailed to all patients who attended the Pre-Admission Clinic approximately one month after attendance. This time frame was determined so as to remove any threat of compromised care the patient may perceive, as a result of criticising the Hospital, while possibly still receiving care. At the same time it still allowed for recollection of Hospital experiences.

Returned questionnaires were analysed to determine specific information relating to the patients' opinion of their hospitalisation experiences particularly in regard to the Patient Management Program.

Procedure

Pre-Admission Clinic Process

The Program nurses coordinated patients' Pre-Admission Clinic visits, liaised with the patients after admission and coordinated and provided domiciliary care. The nurse also gathered data and entered this on the data base. In effect a case management model was employed.

Clerical staff were employed primarily for Pre-Admission Clinic clerical duties and later expanded to include patient admission bookings and Pre-

Admission Clinic appointments. They also gathered demographic data related to Pre-Admission Clinic attendance.

On arrival at the Pre-Admission Clinic, medical record information and demographic data were obtained by the receptionist. In keeping with the protocols of other Pre-Admission Clinics identified in the review of literature, patients then had nursing, medical, and if required anaesthetic assessments attended. The nursing assessment utilised the specifically designed standard integrated assessment tool. It involved collating patient history, identifying potential physical, psychological, or social problems, and undertaking routine observations such as temperature, pulse, blood pressure and weight. Patient education was delivered in both verbal and written format. It comprised information relating to the pre-operative, peri-operative and post-operative phases of treatment. Information pertaining to their admission, fasting and preparatory instructions were also included.

The patients' spouse or main support person was encouraged to attend with the patient to provide support and to have educational aspects reinforced. Patients were also informed of the follow up nursing support and liaison provided by the PAC staff, and contact numbers provided. They were also informed that the Patient Management Program was a pilot research study.

Discharge planning was undertaken and included transport arrangements, the availability of home support, and consideration of environmental and social factors which may impede discharge. If required, in-

house or community based referrals were instigated, for example social work and the Breast Cancer Support Group.

The patient's surgical team resident doctor then performed a physical assessment and completed the standard integrated assessment tool. Questions relating to surgery were answered before written consent was gained. The doctor then ordered pathology, radiology, cardiac or other tests according to guidelines developed by the Hospital Anaesthetic Department (appendix H).

At the discretion of either the doctor or nurse, an anaesthetist examined the patients' suitability for anaesthetic. The patient then had all tests completed at this time within the Hospital.

Prior to leaving the Clinic the patients were informed of the post discharge support services provided by the Patient Management Program, both verbally and in a written format including a 24 hour contact number. Effectively, the Program staff acted as a patient/Hospital liaison.

Early Discharge Program Process

During the inpatient stay, one of the Program nurses (usually the nurse who had assessed the patient at Pre-Admission Clinic) liaised daily with the patient, medical, and nursing ward staff. This liaison facilitated patient progress towards discharge and reinforced the discharge plan previously initiated at the Pre-Admission Clinic. This fortified contact between staff and

patient, ensured continuity of care and contributed to ease of the discharge phase, particularly those patients most suitable for 'early discharge'. It also contributed to a higher profile of the Patient Management Program thus gaining acceptance and cooperation with ward staff.

Nursing care was provided at home visits if required. Domiciliary care was predominantly organised and initiated at ward level by medical or nursing request. Domiciliary visits were also initiated at patients' request if they were particularly anxious and unable to access their own General Practitioners. The domiciliary nurse (usually the same nurse who attended at Pre-Admission Clinic) was able to practice autonomously, although in collaboration or consultation with medical staff, in determining the frequency of visits and this included appropriate referrals to other community services. Principally, the nursing care administered constituted wound care and observation, care and removal of drains, patient and family education, and support. Visits were usually timed for the afternoon, after Pre-Admission Clinic had been completed. On week-ends and after hours the coordinator of the Program was "on call" so as to provide for 7 days a week, 24 hours a day service.

The number and type of domiciliary visits undertaken, travelling time, time spent with patient, care given and equipment used and administration time were recorded by use of both the domiciliary Clinical Pathway and the data collection tool.

Patient Satisfaction Survey

The patient satisfaction survey was posted out to all patients who attended the Pre-Admission Clinic, at one month post discharge. A letter of explanation was included which advised patients not to mark the booklet in such a way as to identify themselves, thus assuring anonymity and informing them of the nature of the research and that results would be used in reports generated by the study.

Analysis Plan

In analysing the data related to this Program, the following plan was instigated. The sample, including experimental, and control groups 1 and 2 were described using descriptive statistics . Comparison and relationships between groups was explored. A description of Program data and costs, the length of stay of DRG's for each of the groups, and throughput comparisons between control groups were also analysed using descriptive statistics. Responses to the Patient Satisfaction Survey were tallied and comments were summarised. Data were then analysed and subjected to peer validation.

Ethical Considerations

The study Hospital determined this process to be part of the admission process and as such did not require submission to the Hospital Ethics Committee. It was however, submitted to and accepted by, the University Ethics Committee.

All study data were considered confidential and a lockable filing cabinet within a secured storage room was made available for a minimum of five years. Security access to computers was also maintained by use of password and a locked room after hours.

Patients attended the Pre-Admission Clinic as a standard requirement of admission at the study Hospital, therefore, consent to participate in the Program, and the study, was not required.

Patient Satisfaction Surveys which stated their confidential nature, was sent in a reply paid envelope to patients one month post discharge. Also included was a letter of explanation in relation to the researchers post graduate studies. Consent was assumed by response as is the accepted mode of practice within the study hospital

CHAPTER FIVE

Results

This chapter will describe data and analysis of costs relating to all aspects of the Patient Management Program. Length of stay and throughput comparisons will also be highlighted.

Description Of Data In Relation To Pre Admission-Clinic Component

The convenience sample of patients for this study were derived from patients awaiting admission to the study hospital for elective general surgery. Control groups 1 and 2 are presumed to be homogenous as there is no apparent reason for any changes to have occurred. Although there were 767 patients who participated in the Program, only 577 patients met the inclusion criteria when DRG's were allocated post discharge, 73.25% of whom were female. Age group ranged from 17-94 with a mean age of 51 years.

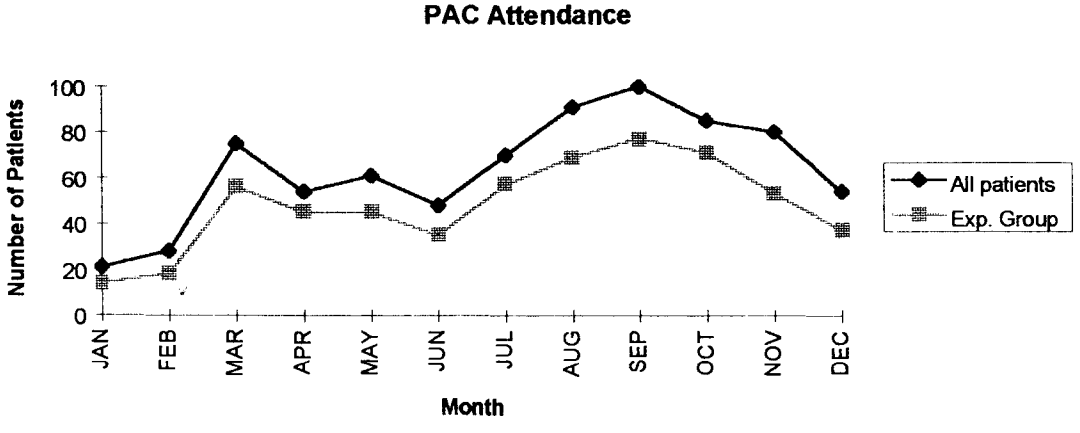


Fig 3. Monthly Comparison of Patient attendance at Pre-Admission Clinic of all patients and the experimental group

The Pre-Admission Clinic was gradually phased in to the Hospital to allow Hospital staff time to become used to the new process.

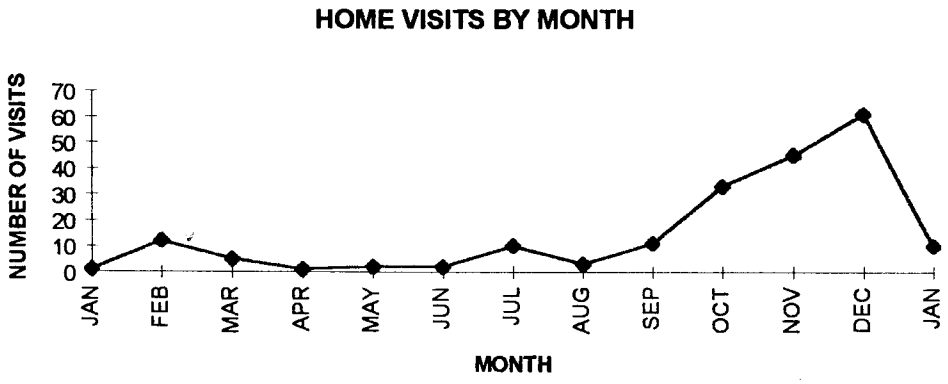
Figure 3 demonstrates patient attendance at Pre-Admission Clinic by all patients, and by the experimental group.

Description Of Data In Relation To Early Discharge Program Component

Overall 74 patients received 273 domiciliary visits although only the data relating to the 53 patients meeting the inclusion criteria are analysed. In total, 196 domiciliary visits were provided to these 53 patients.

It should be noted that figures for January 1996 are reduced as only 9 days of the month are included. Figure 4 demonstrates the frequency of the domiciliary care visits provided to Program patients over the 12 months of this pilot.

Figure 4 The Number Of Domiciliary Care Visits n=196



There were fifty three patients who received 196 domiciliary visits (averaging 3.5 visits each). Each domiciliary visit took an average of just over

1 hour to complete. More than half the time was spent in travelling to and from the patient's home. For this reason only 7-8 patients could be seen by a single nurse at home each day. The data relating to home visits were recorded by the nursing staff and at the time of the visit on the recording tool and entered on the data base at a later date. Table 1 demonstrates this data summary.

* Time is represented in decimal format.

	TOTAL HOURS *	AVERAGE TIME PER PATIENT* (hrs)	AVERAGE TIME PER VISIT* (hrs)
VISITS	66.83	1.19	0.34
ADMIN	23.5	0.41	0.11
TRAVEL	117.83	2.10	0.60
TOTAL	208.16	3.70	1.05

Table 1: Time, Travel and Administration Time Spent at each Home Visit.

The following Table represents the number and predominant type care given at home visits. Dressings and drain care were the predominant reasons for domiciliary care. Many patients required drains to be left in the wound for several days and patient and family compliance were necessary for patients to be discharged.

TREATMENT	TOTAL
DRESSING	102
DRAIN CARE	36
OBSERVATION	34
EDUCATION	9
SUPPORT	7
REMOVAL OF SUTURES	2

Table 2 Number and Predominant Type of Care given at Domiciliary Visits.

Costs

Costs are demonstrated for the following components: Pre-Admission Clinic costs; Early Discharge Program costs; and Comparison of Experimental and Control groups costs. The overall costs and potential savings are then demonstrated.

Pre Admission Costs;

At Pre-Admission Clinic, all patients were seen by a Registered Nurse and a Resident Medical Officer. Most patients had some form of pre-operative testing requested by medical staff, such as blood tests, and these were attended to by the nurse at this time. To accurately estimate average care for each particular DRG, Clinical Pathways were initiated, and amended during the twelve months of the project (appendix C).

Based on the Clinical Pathways, the average components and costs of the Pre-Admission Clinic attendance of each DRG have been determined. Table 3 details this information.

COSTS OF PRE ADMISSION PHASE OF EACH OF THE CLINICAL PATHWAYS

THYROIDECTOMY		MINOR BREAST SURGERY		MAJOR BREAST SURGERY		HERNIA REPAIR		CHOLECYSTECTOMY		VARICOSE VEINS		HAEMORRHOIDECTOMY	
Medical Review		Medical Review		Medical Review		Medical Review		Medical Review		Medical Review		Medical Review	
Consent signed		Consent signed		Consent signed		Consent signed		Consent signed		Consent signed		Consent signed	
ENT Referral													
Sub-total	$9.97		$9.97		$9.97		$9.97		$9.97		$9.97		$9.97
Nursing assessment		Nursing assessment		Nursing assessment		Nursing assessment		Nursing assessment		Nursing assessment		Nursing assessment	
T,P,R,&BP		T,P,R,&BP		T,P,R,&BP		T,P,R,&BP		T,P,R,&BP		T,P,R,&BP		T,P,R,&BP	
Weight		Weight		Weight		Weight		Weight		Weight		Weight	
Pre & post op education		Pre & post op education		Pre & post op education		Pre & post op education		Pre & post op education		Pre & post op education		Pre & post op education	
Discharge planning commenced		Discharge planning commenced		Discharge planning commenced		Discharge planning commenced		Discharge planning commenced		Discharge planning commenced		Discharge planning commenced	
Sub-total	$9.24		$9.24		$9.24		$9.24		$9.24		$9.24		$9.24
Biochemistry Tests		Biochemistry Tests		Biochemistry Tests		Biochemistry Tests		Biochemistry Tests		Biochemistry Tests		Biochemistry Tests	
TFT	$20.00							Amylase	$20.00				
Calcium	$10.05							LFT's	$20.30				
U's & E's	$20.30			U's & E's	$20.30	U's & E's	$20.30	U's & E's	$20.30			U's & E's	$20.30
Sub-total	$50.35				$20.30		$20.30		$60.60				$20.30
Haematology		Haematology		Haematology		Haematology		Haematology		Haematology		Haematology	
FBP	$17.70			FBP	$17.70	FBP	$17.70	FBP	$17.70			FBP	$17.70
G & H	$20.00			G & H	$20.00	G & H	$20.00	G & H	$20.00				
Sub-total	$37.70				$37.70		$37.70		$37.70				$17.70
Other tests		Other tests		Other tests		Other tests		Other tests				Other tests	
ECG if > 45	$25.00	ECG if > 45	$25.00	CXR	$35.95	ECG if > 45	$25.00	ECG if > 45	$25.00			ECG if > 45	$25.00
CXR if > 45	$35.95	CXR if > 45	$35.95	ECG	$35.95	CXR if > 45	$35.95	CXR if > 45	$35.95			CXR if > 45	$35.95
Sub-total	$60.95		$60.95	Referral to:	$71.90		$60.95		$60.95				$60.95
				Breast Cancer Support Service,									
				Social Worker,									
				Occ. Therapist or other									
TOTAL (with "Other tests")	$168.21		$80.16		$149.11		$138.16		$178.46		$19.21		$118.16
TOTAL (without "Other tests")	$107.26		$19.21		$77.21		$77.21		$117.51		$19.21		$57.21

AVERAGE COST PER PATIENT (ALL CONDITIONS) = $130.00

Costs supplied by SCGH Casemix Department. Some procedures have been unable to be costed and have therefore been estimated at $20.00. Nursing and medical assessments have been estimated at 30 minutes.

Table 3

Early Discharge Program Costs

Table 4 demonstrates costs related to the Early Discharge Program's Domiciliary Visits. These costs have been determined from several sources including the data collected at every visit, and the average nurse/doctor salary at an hourly rate.

AVERAGE DOMICILIARY COSTS	
NURSING COSTS PER VISIT	$18.50
TRAVEL ALLOWANCE PER VISIT	$17.80
CONSUMABLES PER VISIT	$0.58
TOTAL	$36.88

Table 4 - Average Domiciliary Costs per Visit

Comparison of Experimental and Control Group Costs

The control groups did not include pre-admission or domiciliary costs. Therefore the cost of their hospitalisation can only be estimated by multiplying the length of stay for each DRG by the minimum cost of a hospital bed. The study Hospital has estimated the minimum cost of a bed day at $450.00.

The following table demonstrates the control groups and the experimental group's length of stay and the cost of the inpatient stay.

DRG	DESCRIPTION	CNTRL GROUP 2	COST (X $450)	CNTRL GROUP 1	COST (X $450)	EXP GROUP	COST
498	MIN NON MALIG BREAST	1.4	$630	1.35	$607.5	1.29	**$580.5**
367	CHOLEC W/O CDE	5.4	$2430	5.22	$2349	4.08	**$1836**
495	MAJOR MALIG BREAST	7.02	$3159	5.57	$2506.5	4.38	**$1971**
314	ING & FEM HERNIA	3.31	$1489.5	3	$1350	2.86	**$1287**
312	ANAL & STOMAL PROCS	3.21	$1444.5	3.19	$1435.5	3.35	**$1507.5**
313	HERNIA EXC ING & FEM	4.82	$2169	5.33	$2398.5	5.21	**$2344.5**
526	THYROID PROCS	4.66	$2097	4.16	$1872	3.88	**$1746**
484	OTHER SKIN & BREAST	1.89	$850.5	1.86	$837	2.22	**$999**
496	MIN MALIG BREAST	3.35	$1507.5	2.55	$1147.5	2	**$900**

Table 5 Inpatient bed Costs for Control and Experimental Groups for DRG's

While the lower length of stay of the experimental group is generally demonstrated, to accurately assess the costs of these patients requires the pre-admission and domiciliary costs to be added together. Table 6 demonstrates these costs.

Description	Estimated Costs
Average Pre-Admission Clinic Cost	$130.00 per Patient
Average Domiciliary costs	$36.88 per Visit.
Avg Cost of PAC x 577 patients	$75010.00
Avg Cost Domiciliary Visits x 196	$7228.48
Total costs PMP	$82,238.48

Table 6 Pre-Admission and Domiciliary costs

The cost of the control groups were not costed other than their length of stay multiplied by approximately $450 which is the accepted bed stay cost for one day. At the very least therefore, the combined costs of the Patient Management Program had to demonstrate a cost less than the cost of the control groups length of stay, to be cost effective.

Table 7 demonstrates cost savings associated with the number and cost of bed days saved by the use of domiciliary visits in lieu of hospital bed days; and the overall average reduced length of stay of Program Patients.

Description	Estimated Savings
$450.00 per day x 196 home visits	$88,200.00 Bed day savings
Average reduced LOS for experimental group estimated at 0.49 days x 577 =	282.73 bed days saved
282.73 bed days x cost of hospital bed ($450) =	$127,228.50 saved
Savings Minus Costs of Experimental Group	$129,825.00 - $82,238.48 =$47586.52
Total estimated savings	$47,586.52

Table 7 Costs and Potential savings

Comparative Length of Stay Evaluation

Many DRG's were ultimately included in the project, however, only those DRG's numbering patients greater than ten (10) have been compared in the following table. The entire DRG list is tabled as appendix I

DRG	DESCRIPTION	CTRL GROUP 1	CTRL GROUP 2	EXP GROUP	NUMBER OF EXP GROUP PTS
498	MIN NON MALIG BREAST	1.4	1.35	1.29	**115**
367	CHOLEC W/O CDE	5.4	5.22	4.08	**95**
495	MAJOR MALIG BREAST	7.02	5.57	4.38	**64**
314	ING & FEM HERNIA	3.31	3	2.86	**58**
312	ANAL & STOMAL PROCS	3.21	3.19	3.35	**46**
313	HERNIA EXC ING & FEM	4.82	5.33	5.21	**28**
526	THYROID PROCS	4.66	4.16	3.88	**25**
484	SKIN, SC TISS & BREAST	1.89	1.86	2.22	**23**
496	MIN MALIG BREAST	3.35	2.55	2	**23**
525	PARATHYROID PROCS	6.7	4.71	5.4	**10**

Table 8 Comparison LOS between the Experimental and Control Groups

Throughput comparisons

Throughput of patients can only be demonstrated between 1994 and 1995, as the Program patients contributed to the 1995 throughput and would not be able to be meaningfully demonstrated. Table 9 below demonstrates this throughput and indicates an increase or decrease between numbers of patients and increase or decrease in length of stay.

	CONTROL GROUP 2		CONTROL GROUP 1 & EXPER. GROUP		INCREASE/ (DECREASE)	
DRG	**CASES**	**DAYS**	**CASES**	**DAYS**	**CASES**	**DAYS**
312	267	767	194	643	(73)	(124)
313	74	377	64	319	(10)	(58)
314	153	497	124	339	(29)	(158)
367	234	1232	206	928	(28)	(304)
484	287	535	279	757	(8)	222
495	130	846	166	745	36	(101)
496	71	201	47	70	(24)	(131)
498	269	354	231	349	(38)	(5)
525	19	127	17	79	(2)	(48)
526	54	238	58	198	4	(40)
TOTAL	**1558**	**5174**	**1386**	**4427**	**(172)**	**(747)**

Table 9 - Throughput between the Experimental and Control groups

Questionnaire Results

Of the 577 patients who attended Pre-Admission Clinic, 255 responded to the questionnaire. This represented a 44.19% response rate.

The following tables demonstrate the individual questions of the Patient Satisfaction Questionnaire (appendix E). It should be noted, that in some of the questions the Pre-Admission Clinic is abbreviated to PAC.

Question 1 - Before admission, who informed you of the Pre-Admission Clinic (PAC)?

Responses	Number	Percentage
Pre-Admission Clinic	120	51.5
Your Doctor	54	23.2
The Admissions Dept	52	22.3
Other	7	3.0

Table 10 Informants of Pre-Admission Clinic

Table 10 demonstrates patient responses as to who informed them of the Pre-Admission Clinic. There were 22 respondents who did not answer this question.

Early in the Program, patient bookings were done through a centralised booking department and it was important to determine if information to

patients was being adequately delivered. Several weeks into the study, the patient bookings for surgery and pre- Admission Clinic were decentralised to the Pre-Admission Clinic staff so the questions became irrelevant.

Question 2 - Was your admission to this hospital problem free?

Responses	Number	Percentage
Yes	218	85.5
No	37	14.5

Table 11 Admission Problems.

Table 11 indicates that the majority of patients who responded to this question felt their admission was problem free. Of those who did not, 27 indicated specific problems, particularly having their surgery rescheduled. This is demonstrated in Table 12.

Comments

Comment Type	Number of Comments
Smooth admission process	3
Cancellation or rescheduling surgery	12
Waiting time admission & surgery	7
Problems at time of admission	4
Difficulty contacting medical staff	2
Bed availability queries	2

Table 12 Specific Problems Relating to Admission

Question 3 - At the Pre-Admission Clinic did the staff introduce themselves?

Responses	Number	Percentage
All Staff	203	90.6
Doctors	4	1.7
Nurses	6	2.7
Secretary	4	1.7
Doctor and Secretary	3	1.3
Doctors and Nurses	2	1.0
Nurses and Secretary	2	1.0

Table 13 Staff Introduction at Pre Admission Clinic.

As indicated in Table 13, over 90% of respondents indicated that all staff had introduced themselves. Over 40 patients took this opportunity to comment on the friendly and caring nature of the staff at the Pre-Admission Clinic as indicated in Table 14.

Comments

Comment Type	Number
Friendly and caring	32
Reassuring aspect of staff care	9
No Doctor ID or introduction	1
Not all staff introduced themselves	1

Table 14 Comments relating to Pre Admission Clinic staff

Question 4 - When discussing your condition or treatment at the Pre-Admission Clinic, did the hospital staff speak to you in a way you could understand?

Responses	Number	Percentage
Always	210	85.4
Mostly	30	12.2
Sometimes	6	2.4
Never	0	0

Table 15 Staff Responses to Patients

Table 15 highlights the fact that over 200 respondents indicated Pre-Admission Clinic staff had spoken in a way they could understand. Of the 14.6% of patients who indicated some doubt in understanding staff, no patients indicated a totally negative response. Two patients had required a translator at Pre-Admission Clinic, the cost of which was not met by the Program as it is a normal requirement for any patient requiring it and the cost is met by the social work department. Two patients sent their questionnaire back complete with translations.

Comments

Comment Type	Number
All aspects explained by nurse	7
PAC staff most helpful and kind	5
Staff put patient at ease	4
Interpreter provided	3
Difficulty understanding doctor	1
Almost treated as sub intelligent	1

Table 16 Comments relating to Staff Communication.

The comments in table 16 relating to the aspects of understanding of Pre-Admission Clinic staff are generally positive.

Question 5 - Do you feel you were given enough information about your treatment and hospitalisation BEFORE you were admitted?

Responses	Number	Percentage
Yes	232	93.5
No	16	6.5

Table 17 Responses Relating to Patient Information

As demonstrated by table 17, the majority of patients indicated they felt they had received enough information about treatment and hospitalisation

before they were admitted. There were nine respondents who were undecided on this question or did not answer at all.

Question 6 - If YES, who gave this information to you?

Responses	Number	Percentage
PAC Doctor	52	42.6
PAC Nurse	61	50.0
Other	9	7.4

Table 18 Information Sources

Many patients indicated they felt the question format was poor and wrote comments instead of indicating an answer. Some of these comments are highlighted in Table 19.

Comments

Comment Type	Number
Nurse was very professional	6
Nurse mostly, also Dr	3
Surgeon gave me most info	6
All very helpful	4
Doctors in ward	1
Previous surgery prepared me	1
Treatment and caring excellent	1
Breast Assess Centre & PAC staff	1
Dr not interested	2
More info about operation and after effects	10

Table 19 Comments Relating to Information Provider

Question 7 - Would you have preferred to have been admitted:

Responses	Number	Percentage
The day before surgery	88	37.00
The day of surgery	136	57.1
Unsure	14	5.9

Table 20 Patient Admission Preference

As indicated in Table 20, over 57% of 238 respondents would have preferred to have been admitted to hospital on the day of surgery. This is of particular interest to Pre-Admission Clinic which aims to facilitate same day of surgery admission. Table 21 below highlights some of the most commonly held perceptions about this process.

Comments

Comment Type	Number of Comments
Day before surgery is best	14
Less time in hospital is best	10
Whatever Dr thinks is best	1
Depends on operation	3
Don't mind	1

Table 21 Patient Comments Relating to Admission Time

Question 8 - At your Clinic appointment did the staff explain what was about to be done?

Responses	Number	Percentage
Always	192	78.4
Mostly	45	18.4
Sometimes	7	2.8
Never	1	0.4

Table 22 Staff Explanations at PAC

Table 22 shows the majority of respondents as indicating Pre-Admission Staff always explained what was about to be done. Table 23 demonstrates some of the comments relating to communication of information.

Comment Type	Number of
Everything explained.	13
Felt completely at ease	
Nurse did, Dr did not	1
Staff very good, very friendly	4
PAC yes, Outpatients clinic -NO	1
I didn't ask the right questions	2
Repeatedly, repeatedly	1

Table 23 Patient Comments Relating to Staff Explanations

Question 9 - At the Pre-Admission Clinic, were you kept waiting to be seen?

Comment Type	Number
Yes	11
No	110
Impressed with the PAC	4
Not very long	25
Dr, he was very busy	4
15 minutes (acceptable)	2
10 - 15 minutes for Dr	11
30-45 minutes for Dr	12
60 minutes for Dr	8
2 hrs 30 minutes in PAC overall	1
3 hours for Dr	1
Yes, but staff apologised and gave coffee so did not mind	4
30 - 60 minutes	7
Nurse very friendly	2
Yes, as usual	4

Table 24 Waiting Time at PAC

There was a wide variety of responses to this question, but overall, Table 24 indicates the majority of respondents were not kept waiting. It was interesting

to note some patients considered waiting times to be acceptable. For the same amount of time others did not.

Question 10 - During your examination or treatment, did you feel that your personal dignity was maintained?

Responses	Number	Percentage
Always	211	86.9
Mostly	28	11.5
Sometimes	3	1.2
Never	1	0.4

Table 25 Was Dignity Maintained at Pre Admission Clinic

As indicated by Table 25 almost 87% of responses indicated that patients felt they were always treated with dignity. Only four responses of the 243 indicated negative aspects and these related to medical staff as shown in table 26.

Comments

Comment Type	Comments
Very professional, considerate	7
No complaints	2
Very satisfied with service	2
As best as could be expected	1
Dr appeared nervous	1
Dr was rude	3

Table 26 Comments Relating to Dignity

Question 11 - If you suffered pain after discharge, did you feel it was adequately controlled?

Comment Type	Comments	% of Total number
Always	25	26.04%
Mostly	33	34.38%
Sometimes	6	6.25%
Never	3	3.13%
Not Applicable (No pain)	29	30.21%

Table 27 Pain Control Post Discharge

There were 96 responses to this question and indicated some problems associated with pain control. Table 27 indicates the numbers of these responses. Table 28 highlights some of the particular comments.

Comments

Comment Type	Comments
GP provided support	1
Slight pain	1
Problems with pain relief	5
Family provided support	1
Pleased with PMP staff support	2
Was told what to expect	1
Controlled	4

Table 28 Comments Relating to Pain

Question 12 - Do you feel you were able to recover from your operation quicker by being in your own home earlier?

Responses	Number	% of Total
Yes	61	61%
No	23	23%
Don't know	16	16%

Table 29 Perceptions of Recovery at Home

Of the 100 responses to this question 23 respondents indicated they did not feel able to recover more quickly by being in their own home earlier. Many of the comments in Table 30 indicate the fear associated with being home was more an issue rather than actual problems developing.

Comments

Comment Type	Number
Patient considered discharged too early	2
Recovered better at home	9
Satisfied with hospitalisation time	1
Excellent home support by PMP staff	3
Unsure about whether home was best	5

Table 30 Comments Regarding Recovery at home

Question 13 - Did you visit your GP while the hospital nurses were visiting you?

Responses	Number	Percentage
Yes	55	74.3
No	19	26.7
If yes, how many times		-
1	1	
2	2	-
3	1	-

Table 31 GP Visits Post Discharge

Of the 74 patients who responded to this question, 74% indicated they had seen a GP post discharge as shown in table 31. However, many of these patients indicated the reasons and these were mostly non urgent.

Question 14 - Did you feel safe having your treatment at home rather than in hospital?

Responses	Number	Percentage
Yes	50	76.9
No	15	23.1

Table 32 Feel Safe at Home

Of the 65 patients who responded to this question, 76.9 % of the respondents indicated they felt safe having their treatment at home as is demonstrated by Table 32. Table 33 relates the few comments offered in relation to this question.

Comments

Comment Type	Number
Family was concerned about drains	1
Better at home	2
Excellent home support by PMP staff	2
Unsure	3

Table 33 Comments Relating to Care at Home

Question 15a - Did you think the home nursing was a good thing?

Responses	Number	Percentage
Yes	55	88.7
No	7	11.3

Table 34 Opinions regarding Home Nursing

Only 62 respondents answered this question, as illustrated in Table 34, but 88.7% of these patients felt home nursing was a good thing. It is difficult to know whether these patients followed the booklet instructions and answered this question only if they had received home nursing.
Similarly, in Table 35 only 71 patients responded to the question but of these 91.5% responded in the affirmative.

Question 15b - Would you recommend it to your friends?

Responses	Number	Percentage
Yes	65	91.5
No	6	8.5

Table 35 Recommendation to Friends

Question 16 - To ensure that all people are represented from the community, could you please tick the appropriate box. Which age group are you in?

Responses	Number	Percentage
10-19	6	2.4
20-29	15	6.2
30-39	33	13.3
40-49	62	25.0
50-59	41	16.5
60-69	48	19.3
70-79	34	13.7
80+	9	3.6

Table 36 Age Group of Respondents

Table 36 demonstrates respondents age groups. Twenty five percent of respondents' age groups fell within the 40-49 year age group and more than 60 % of respondents fell within ages 40-69. Nearly 70% of respondents were women.

Question 17 - Are you:

Responses	Number	Percentage
Male	76	30.5
Female	173	69.5

Table 37 Percentages of male and female respondents

Question 18 General Comments

Comment Type	Number
Appreciation expressed	102
Meals could be improved	14
Outpatient wait too long	3
Post discharge pain a problem	3
Drs too busy	1
Complaints about Dr	8
Bed uncomfortable	1
Post discharge support appreciated	6

Table 38 Other Patient Comments

In response to question 18, Table 38 demonstrates the general comments patients made when invited to comment on any other aspects of care. Complaints about doctors and meals again featured prominently.

Summary of results

The statistical results presented in this chapter demonstrated the costs of the Pre-Admission Clinic and the Early Discharge Program. The length of stay was reduced in most categories of DRG's and overall the length of stay of Patient Management Program patients was determined to be 0.49 days less than control group 1. Tests of significance were not employed in this study because of difficulty in accessing accurate data relating to the control groups, and also because of the small numbers of patients in each DRG category. The reduction in the length of stay, did however, allow potential savings to be identified, even after the costs of the Patient Management Program services were taken into account. The length of stay of control group 1 was reduced when compared to control group 2.

Throughput in the Hospital remained relatively stable, although there are various extraneous variables to explain this, including the fact that the surgical teams were functioning with one less surgeon than the previous year.

The Patient Satisfaction Survey highlighted areas for concern, especially in regard to doctors, waiting times and Hospital food.

Morbidity was unable to be accurately compared with control groups because of the Hospital's current inability to determine this information. Numbers of readmissions are recorded, but there is no way of recording what they had been readmitted for, ie further surgery, radiotherapy or other treatment associated admissions.

CHAPTER SIX

Discussion, Recommendations and Conclusions

This section will examine the outcomes of this study in relation to the objectives of the Patient Management Program within the conceptual framework.

Objective 1

Reduced Length Of Stay

The utilisation of the Patient Management Program was a major new process within the study Hospital requiring a complete change of culture. In the early stages of the project, the change process was difficult to implement, however, admission on the same day of surgery became the norm as the project progressed and ultimately the overall length of stay of Program patients was demonstrated to be reduced by 0.49 days which was in keeping with other similar research studies already highlighted in the literature review.

The reduced length of stay was not statistically analysed because, although there were a large number of patients in the study, some of the groups of DRG's were very small and this detracted from the statistical strength of the study. A compounding dilemma related to the difficulty in gaining access to information concerning the control groups, because of a delay in the implementation of new more accurate computer programs which were to have been instituted at the study hospital but to date have not been implemented.

As the average length of stay is the accepted form of data information required by the Government Health Department, and was therefore the funding body requirement in this study, comparisons of this kind were regarded as the most appropriate form of analyses.

Other variables which may have impacted on the reduced length of stay relate to more global impacts such as economic cut backs, and the general trend to a more reduced length of stay due to social factors. Reduction of length of stay often implies reduced services or quality of services. This did not appear to be reflected in the patient satisfaction surveys.

Objective 2

Increased Efficiency And Reduction In Costs

The introduction of the Patient Management Program included the decentralisation of this booking services to the Program clerical staff. The Pre-Admission Clinic clerk notified patients' of admission and theatre dates, as well as arranging Pre-Admission Clinic attendance appointment.

Prior to the establishment of the Pre-Admission Clinic, elective surgical patients were admitted the afternoon or evening prior to surgery when beds became available as other patients were discharged. Consequently, the patients late admission necessitated venipuncture, ECG, chest X rays and other pre-operative investigations to be performed after office hours. The implementation of Pre-Admission Clinic allowed elective surgical patients to be admitted on the same day of surgery, as the admission process had

already been completed. This was reported anecdotally by the Hospital administration as having reduced the overtime costs for both medical staff and other technicians. The official data was not available to this study because economic analyses were incomplete by the end of this study. The use of the integrated assessment forms and Clinical Pathways decreased the amount of paperwork particularly for medical and nursing staff in the ward areas at the time of admission.

The coordination of the patients' pre-admission by the Pre-Admission Clinic nurse also allowed improved interdisciplinary communication as the nurse undertook a 'case management' role between doctor, anaesthetist, ward nurses, and clerical and other staff.

The initial discharge plan formulated at Pre-Admission Clinic provided documented evidence of the referrals and planning having already taken place. Liaison particularly developed between the Program staff and many General Practitioners as well as Community Nursing Services.

Clinical pathways and integrated notes also contributed to the smooth process of discharge by providing indicators as to the standards of care expected at the patients particular stage of hospitalisation. The use of Clinical Pathways in this program was anecdotally reported as providing useful guidelines for junior medical staff unfamiliar with standard guidelines for pre surgery assessment for different DRG's. Therefore, the Clinical Pathways to a large extent prevented overservicing and facilitated more appropriate testing. They also allowed patients access to the 'normal'

processes relating to their surgery and thus allowed them to be more fully aware of what constituted routine care and recovery. This was anecdotally noted by the researcher as contributing to allaying anxiety and promoting compliance. It also reduced nursing staff documentation whilst still allowing for individualised patient records. An additional demonstrated benefit was the ease of analysis of resource consumption particularly in the domiciliary component of the program.

Venipuncture was undertaken by the Pre-Admission Clinic nursing staff thereby reducing the number of Hospital staff to whom the patients were exposed. Any test irregularities were therefore available prior to surgery, allowing further testing or rescheduling of patient surgery prior to admission.

Discharge planning has in the past been undertaken by ward staff in an ad hoc manner when discharge was imminent. Frequently this led to delays in discharge as arrangements proved difficult to implement. Discharge planning at Pre-Admission Clinic encompassed planning and arranging transport, social support in the period immediately post discharge, referrals for domiciliary care and identification of those patients who were suitable and willing to be discharged "early". The information was documented in the integrated assessment forms, allowing for ease of discharge by ward staff. With discharge planning being initiated at the pre admission stage, problems which were difficult to overcome once the patient is admitted, were addressed prior to admission and contribute to the overall efficiency of the hospitalisation episode. This supports the evidence of the nursing literature which not only

highlighted timely education as allaying patient anxiety, but as also contributing to institutional efficiencies.

Several factors were reported anecdotally by patients as having contributed to their confidence and willingness to be discharged "early". This included the identification of possible obstructions to discharge at Pre-Admission Clinic. Also, confidence in the nursing staff they dealt with, continuity of care provided, and the ability to have immediate access to nursing support by telephone reduced anxiety related to discharge. This support by Program staff, and the confidence patients placed in the staff supports the concepts of continuity of care and reduced feelings of vulnerability, as Irurita (1993) advocated.

In the early stages of the project the need for domiciliary visits was less than anticipated. This was attributed to the traditional domiciliary role played by the Silver Chain Nursing Association of Western Australia which has in the past, contributed significantly to the care of surgical post operative patients. This is no longer the case, as funding is now restricted to the care of the elderly and frail for whom they are expressly funded. As medical staff came to know and trust the Pre-Admission Clinic staff, with whom they were required to work closely, the domiciliary aspect of the Program gained gradual acceptance.

Objective 3

Throughput Of Surgical Patients

The throughput of patients at the study Hospital has not greatly increased between 1994 and 1995. There are several explanations for this, including the Hospitals' functioning with one less general surgeon during 1995, and the general economic pressures impacting on bed and theatre closures over the past year.

The anticipated implementation of Casemix DRG funding in July 1995 did not eventuate. This process has been delayed indefinitely for various reasons and the incentive for increasing throughput, is no longer applicable at this time. This new form of funding was meant to reward institutions who increased throughput, by allocating funding appropriately, at present however, decreased length of stay is allowing greater utilisation of beds and increasing throughput to a point where bed closures are anticipated in public hospitals to reduce costs.

Objective 4

Reduced Post Discharge Morbidity

Twenty-seven patients were readmitted for further surgery or care within one month post discharge. The majority of these patients had undergone breast surgery and had difficulty with bleeding or lymphatic drainage problems. On many occasions Program staff were instrumental in arranging

these readmissions as they had identified the problems during the provision of domiciliary care.

On other occasions staff were the first contact patients made when experiencing problems. Program staff liaised with Hospital staff to arrange a smooth readmission process. Liaison between patient and nurse after discharge, either through telephone contact or by domiciliary visits, provided individualised assessment in the event of post operative complications. The nursing staff access to the patients surgical team allowed streamlined intervention and avoided patient presentation to the Hospitals' Emergency Department and readmission on several occasions although this is difficult to document other than anecdotally.

To demonstrate the significance of this liaison role the following case study is presented.

A 68 year old man who was scheduled for a routine inguinal repair was seen at Pre-Admission Clinic five days prior to surgery. At this time it was noted by the nurse that the patient's wife tended to answer all questions directed at the patient, while he remained passive and slightly agitated. On further assessment it appeared the patient was suffering from a mild form of dementia, although his wife refused to confirm this, explaining his affect as his normal 'vague' self. It transpired that the wife had essentially cared for him since his retirement three years previous due to his increasing 'forgetfulness'. The wife refused to acknowledge anything as being unusual and refused offers of assessment by the "aged care team" at the Hospital. She did agree

however, that he would benefit from same day admission and day surgery. Admission and surgery was attended without incident. The following morning, however, the patient's wife phoned the nurse at 7 am in some distress. The patient had awoken quite unaware that he had undergone any surgery. The dressing and localised swelling had caused him confusion and distress and the wife was unsure as to how to help him. The nurse telephoned the patients General Practitioner to alert him to the patients condition, but he was not available. She then attended the patients home, removed the dressing, administered a mild analgesic and assisted him with a warm shower. He was immediately appeased and required no further treatment. It was while in discussion with the nurse at this time, however, that the patients wife did acknowledge the patients deteriorating mental condition and the fact that because she had so rigidly maintained a well controlled and routine environment she had been able to keep from admitting to herself and their increasingly alienated family, the truth of his condition. With the nurses support over the next few days the wife gradually agreed to an assessment by the 'aged care team' from the study Hospital. He was diagnosed with Alzheimers disease and is now attending a day centre three days a week. The wife has joined with the Alzheimers Association and receives respite care and assistance when needed. She has occasionally maintained contact with the Patient Management Program staff to report his condition and her pleasure at the outcomes of her association with the study Hospital.

This case study reflects the total care and management of not only this patient and his family, but the interdisciplinary communication with Hospital and community resources. The patient not only had a one day stay in Hospital, but had appropriate post discharge support and excellent surgical and quality of life outcomes.

Objective 5

Increased Patient Satisfaction

For those patients waiting to undergo minor surgical procedures this Program allowed less time off work or away from their family. Women with children commented anecdotally that this was a major consideration to them and in some cases directly affected their ability to attend hospital for their procedure. For some patients the combination of both the Pre-Admission Clinic and the Early Discharge Program resulted in what could have been expected to be a three day hospitalisation episode, being reduced to a day surgery episode. As the patients who met the inclusion criteria generally had a short expected length of stay, this could not be greatly decreased.

The late admission of patients to hospital is not, however, merely a matter of timing. Traditionally, education has been provided in an 'ad hoc' fashion by hospital staff, as time allows (King and Tarsitano, 1982; Milazzo, 1980) usually in the period after admission and prior to surgery. This has been one of the traditional arguments for admitting patients to hospital the day prior to surgery. The Pre-Admission Clinic staff undertook this role,

providing information in both verbal and written format. Information specifically relating to the nursing aspects of the operative procedure was provided. This incorporated such topics as pain and pain relief, pre-operative and post-operative nursing care and post operative expectations. The medical staff provided patients with information specifically relating to surgery including peri-operative routines, risks of complications, and other medical information as well as re-enforcement of post operative recovery and expectations.

The benefits of the timing of education were expressed anecdotally by patients to the nursing staff at various stages of care. Patients apparently appreciated the systematic, complete deliverance of surgery in an unhurried, relaxed manner.

The rapport established at Pre-Admission Clinic was re enforced by the daily liaison by Program staff and the support and liaison role of the nursing staff, both pre and post-operatively. Effectively, the staff acted as a patient/Hospital liaison and the provision of this service improving the Hospital's efficiency.

Support was provided in several distinct ways over the three stages of treatment ; the pre-operative stage, Inpatient stage and post operative stage.

Acting as patient advocate

Many issues were identified at Pre-Admission Clinic whereby patients expressed feelings of vulnerability and inability to deal with their disease, treatment, prognosis and other health professionals. Pre-Admission Clinic staff were able to assist patients by explaining the procedure and treatment. Referrals to support groups such as the Breast Cancer Support Service, and social workers, were also initiated by the nurse.

Provision of information after Pre-Admission Clinic but prior to admission

Many patients phoned the Pre-Admission Clinic at various stages of their care to clarify information or to request further information.

Admission and discharge coordination.

As the Program nursing staff did their ward "rounds" every morning and afternoon, admission and discharge liaison was able to be easily effected. The continuity of nursing staff who had pre-admitted the patient and therefore knew the patient and their circumstances, allowed for a personalised service for which patients expressed their gratitude.

Telephone support and domiciliary visits.

Post-discharge telephone calls were implemented as a courtesy to patients within 24 hours of discharge. Many patients were surprised and grateful at this and documented their pleasure in writing. The ability to access the staff was reinforced at this time.

Adequate pain relief for patients was one of the most difficult aspects of the domiciliary component of this program. This was verified by the patient

satisfaction surveys which identified inadequate pain relief as an obstacle to early discharge. Specific protocols pertaining to pain relief are currently being trialed in this regard. On call anaesthetists are also available for the Program nursing staff to liaise with and access 24 hours a day.

Limitations

The inability of this study to randomise occurred as a consequence of the restrictions placed upon it by the contract between the funding body and the Hospital and as such, was outside the control of the researcher.

The inability of the study Hospital to provide appropriate data in regard to the outcomes of the control groups. The Hospital Information Systems Personnel anticipated their ability to measure and identify morbidity rates in relation to Hospital clinical indicators by the end of the study trial period. To date, however, this information is not available. The current information systems do 'capture' information regarding patient re-admissions to the Hospital within 30 days of discharge, however, the reason for the re-admission is not officially obtainable. Therefore, in regard to the research questions, morbidity in the experimental group is available, but is not available for the control groups.

Inclusion in the study by DRG proved difficult to implement. Patients admission diagnosis did not guarantee post discharge DRG. For this reason many patients whom it was assumed would meet the inclusion criteria, attended Pre-Admission Clinic and ultimately, did not.

Recommendations for Nursing Practice

This Program successfully allowed nursing staff to practice an autonomous, primary nursing role, whilst employed as hospital based Registered Nurses. For this reason It is recommended that the profession endorse and foster the role of the Nurse Practitioner in a similar context as that which is discussed in a New South Wales Discussion Paper of 1992 (Nurse Practitioners in NSW, UP 1992).

To ensure increased continuity of care and a more shared model of care, for short stay surgical patients, it is recommended that the nursing profession and General Practitioners forge closer ties. Specifically, this may be addressed by the use of Clinical Pathways, patient satisfaction surveys and needs analyses being addressed in conjunction with General Practitioners prior to admission.

Recommendations for other Acute Care Facilities

Due to the successful outcomes of this pilot program it is recommended that studies which replicate, analyse and evaluate Programs similar to this, be supported and facilitated.

Because of difficulties in establishing the Patient Management Program associated with interdisciplinary communication, it is recommended

that similar programs should be implemented in conjunction with a systematic and on going process of multidisciplinary staff development.

It is recommended that Clinical Pathways be utilised and promoted to allow accurate costings of similar programs, and to ensure legal responsibilities are met.

A dedicated clerical service is used for the booking of surgical patients to maintain a close working association with and between medical and nursing staff. This is opposed to a centralised booking service as is the usual practice in many large public health facilities.

Recommendations for Research

It is recommended that this study be replicated using a more rigorous research methodology. Randomisation of patients in particular would better allow for statistical significance to be determined.

Research should be undertaken into the existing community links between General Practitioners and nurses and ways to improve this communication. World wide trends indicate more community based health services in lieu of inpatient hospital care in the future.

Conclusion

Having reviewed the literature, both nationally and internationally, relating to the major concepts of pre-admission clinics and early discharge

programs, the evaluation of this newly implemented Patient Management Program, demonstrates the effectiveness of many best practice principals.

Other nurse managed programs which choose to replicate this Program, will benefit from the demonstrated patient and hospital benefits. Integration of major concepts, utilisation of tools and facilitation of team members to function autonomously although in collaboration with hospital medical and auxillary staff, will support the concept of hospital based nurses providing community based care. Without continuity, planning and documentation of care and the autonomy to practice, diagnose and treat, nurses may merely become task oriented carers for short periods of patients' hospitalisation. The nursing profession must endeavour to define the role it will play in the future provision of care.

This Patient Management Program has proved to be a successful and feasible option in maintaining, if not improving standards of care, increasing hospital efficiency and ensuring patient satisfaction. The use of a model of care which is supported by the overall philosophy of the study Hospital provided great momentum in providing patient care which was customer focussed and strengthened patient integrity. This was expressed through flexible and individualised care by nursing staff who were consistent in the patients' hospitalisation episode and reflected in the satisfaction surveys.

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APPENDIX A
PATIENT EDUCATION BOOKLETS

Sir Charles Gairdner Hospital

PAC

PRE-ADMISSION CLINIC

Information for patients requiring breast surgery

Lumpectomy

Please read

the following instructions carefully

If you have any queries
please phone 346 3333 and ask for the
Pre-Admission Clinic Co-ordinator to be telepaged

Please ring ward _____ at _____ o'clock to confirm your operation.

•Please come to SCGH, G Block reception area at _____ o'clock on _____ 1995. The admission clerk will take your particulars and put an identity bracelet on your wrist. Bring your **Medicare card and other health insurance fund cards** *with you. You will then be shown to your ward.*

• Do not wear any jewellery (other than your wedding ring), or bring other valuables, as the hospital cannot accept responsibility for these items.

•Please arrange transport to and from hospital as you are not permitted to drive for 24 hours after a general anaesthetic.

• Please shower on the morning of your admission and remove nail polish. Do not use deodorant or talcum powder. Make up will need to be removed prior to your operation, but you may prefer to do this on the ward.

•Please do not eat or drink after _____

• If you are on medication you should continue to take this unless you have been instructed otherwise. Please take with only a minimal amount of water. Bring your medication into hospital with you.

•To avoid any anaesthetic problems, please try not to smoke for at least 24 hours before admission.

You probably responded with mixed feelings to the news of your diagnosis and impending surgery. We understand that this is a very emotional time for you and we will try to provide you with the best quality care while you are a patient at Sir Charles Gairdner Hospital. Please do not hesitate to ask if you have any questions or would like more information.

General information

Breasts may change their shape and size at various times such as your monthly period, age and with weight changes. Most changes are harmless; however, they should be checked by your doctor, regardless of whether or not they are painful.

Lumpectomy

The operation you are to have is called ***lumpectomy.*** *Usually this procedure is done as day surgery. A lumpectomy is the procedure used for removing small well defined lumps which may also be known as a* ***tumour.*** *This does not necessarily mean it is a cancer.*

A small cut is made near the lump through which the surgeon removes the tumour and a margin of surrounding tissue. Nearby lymph nodes may also be removed. A ***tumour*** *is a new growth of tissue characterised by an uncontrollable abundance of cells. It may be benign or malignant.*

Benign *lumps or tumours will not spread to other parts of the body.*

Malignant *growths are cancerous and may spread to other parts of the body. These need to be treated.*

Day of surgery

When you come into hospital you should be fasting. This means not eating or drinking for 6 hours before the operation. After being admitted by your nurse you will be asked to dress in a hospital gown and pants (one size fits all). If you were not seen by an anaesthetist in the Pre - Admission Clinic, the anaesthetist will visit you before your operation. He/She may order a premedication to help you relax before your anaesthetic. This may be in the form of a tablet or an injection.

After your operation

Immediately following your operation you will be taken to the recovery room where the nurse will monitor you closely until you wake up. Your blood pressure and pulse will be monitored frequently. It will be about two hours from leaving the ward until you return. The nurse caring for you will record your temperature, pulse and blood pressure at regular intervals to ensure you are recovering from your anaesthetic.

Please let the nurse know if you have any pain or discomfort. *Only you know how much pain you have so please do not hesitate to ask for pain killing medication when you need it.*

You may have your arm elevated on a pillow. The other arm may have an intravenous drip in it to provide you with fluids until you are able to drink. There may be a drain from the wound site which is to drain excess blood away and to prevent swelling and bruising. This will be removed before you go home.

You may gradually eat and drink as you feel up to it.

Post op exercises

Repeat the following exercises every 1 - 2 hours until you are up and around.

Keep your lungs functioning properly!

Deep Breathing and Coughing

1. *Breath in slowly through your nose for a count of five.*
2. *Then breath out all the air in your lungs through your mouth.*
3. *Repeat this several times.*
4. *Then, breath in deeply, using both your hands or a pillow to support your wound. Cough (try a cough as deeply as possible. Don't just clear your throat).*
5. *Bending your knees up will help relax your stomach muscles and make these exercises more comfortable.*

Keep your skin healthy

Changing Position

1. *Remember to lie on your sides as well as on your back.*
2. *Try to change position every 2 hours.*

Promote good circulation in your legs

Leg Exercises

The following exercises should be performed slowly and rhythmically, tightening the muscles of your legs as hard as you can.

1. *Push both feet down towards the foot of the bed, hold for a count of three, then relax.*
2. *Pull both feet up towards you, hold for a count of three, then relax.*
3. *Circle both ankles, first to the right and then to the left.*
4. *Bend each knee slowly up and down.*

These exercises should be performed 5 -10 times each, every 1 - 2 hours and combined with your breathing exercises will help you in your recovery.

Post discharge

Even after breast surgery you must continue to see your doctor immediately (i) you discover a breast lump
(ii) notice discharge from your nipple
Examine your own breasts monthly if you are 20 years of age or more. Between the ages of 35 - 40, organise for a baseline mammogram. If you are 40 years or over, visit your doctor yearly for a breast examination and schedule mammography for every 1 - 2 years.

We hope your stay at SCGH is comfortable and meets all your needs. Please do not hesitate to ask either your nurse or your doctor if you have any questions regarding your care.

PAC

PRE-ADMISSION CLINIC

Sir Charles Gairdner Hospital

CUSTOMER FOCUS WESTERN AUSTRALIA

Sir Charles Gairdner Hospital

PAC

PRE-ADMISSION CLINIC

Information for patients undergoing

Thyroidectomy

Enquiries

7 days / week 8.30am- 5.30pm

3464550

or mobile 014 832935

Please ring SCGH on 346 3333 and ask for Ward ..... at.....o'clock on.....:..... to confirm your operation.

- *Please come to SCGH, 'G' Block reception area. The admission clerk will take your particulars and put an identity bracelet on your wrist. Bring your* **Medicare Card and or other Health Insurance Fund Cards** *with you. You will then be shown to your ward.*

- *Do not wear any jewellery (other than your wedding ring), or bring other valuables, as the hospital cannot accept responsibility for these items.*

- *Please arrange transport to and from hospital as you are not permitted to drive for 24 hours after a general anaesthetic.*

- *Please shower on the morning of your admission and remove nail polish. Do not use perfume, deodorant or talcum powder. Make up will need to be removed prior to your operation, but you may prefer to do this on the ward.*

- *Please* **do not eat or drink after** .....

- *If you are on medication you should continue to take this unless you have been instructed otherwise. Please take with only a minimal amount of water. Bring your medication into hospital with you.*

- *To avoid any anaesthetic problems, please try not to smoke for at least 24 hours before admission.*

The operation you are coming into hospital for is called a Thyroidectomy.

What is a thyroidectomy ?

It is the surgical removal of all or part of the thyroid gland. The thyroid gland is a butterfly shaped gland in the front of the lower neck. It produces hormones which are important in maintaining normal growth and metabolism. It also serves as a storehouse for iodine. Too much of the hormone speeds up bodily functions and activities, thereby increasing the rate at which the body uses energy. You may have had several tests before you and your doctor decided on surgery. This is to see how active your thyroid is.

Day of surgery

You will need to fast from food and drink for 6 hours before your operation.

If you did not see the anaesthetist in the Pre - Admission Clinic, one will visit you on the ward prior to surgery.

You will also need to be seen by the ENT (Ear, Nose & Throat) Registrar. This may occur at the PAC or once you are admitted to hospital.

After being admitted by your nurse, you will be prepared for theatre and be asked to dress in a hospital gown.

The doctor may order a pre-medication to help you relax before your anaesthesic. This may either be a tablet or an injection.

After your operation

You will be taken to the recovery room where you will be monitored frequently for your conscious state, breathing, pulse rate and blood pressure. When these are stable you will return to the ward. The nurse will continue to monitor your temperature, blood pressure, pulse and to check your wound from which there may be 1 or 2 drains. Your wound will be a small incision in your lower neck and the drains are usually removed within the first 24 hours.

Initially you will have an intravenous line (drip) in your arm. This will be removed when you are able to drink sufficient fluids.

Please report any difficulty you may experience with swallowing, immediately. You may have some swelling caused by the operation. Cold drinks and ice will help reduce and relieve this discomfort. Initially a soft diet will help in reducing swelling. After surgery your voice may be hoarse. This will be checked periodically. The stiches are usually under the skin and dissolve gradually.

Please let your nurse know if you have any pain or discomfort. Only you know how much pain you have.

PAC

PRE-ADMISSION CLINIC

Sir Charles Gairdner Hospital

CUSTOMER FOCUS WESTERN AUSTRALIA

Sir Charles Gairdner Hospital

PMP

Patient Management Program

Instructions for **Cholecystectomy** patients

Enquiries

7 days / week 8.30am- 5.30pm

3464550

or mobile 014 832935

Please ring Ward_____at_____o'clock
on _____ to confirm your operation.

- *Please come to the SCGH 'G' Block reception area at _____o'clock on _____ Bring your* **Medicare Card and / or other Health Insurance Fund Cards** *with you. You will then be shown to your ward.*

- *Please do not wear any jewellery (other than possibly your wedding ring), or bring other valuables, as the Hospital cannot accept responsibility for these items.*

- *Please arrange transport to and from hospital as you may not be well enough to drive yourself home. You must not drive a car for at least 24 hours after an anaesthetic.*

- *Please shower on the morning of your admission (especially your navel) and remove nail polish. Do not use talcum powder or deodorant.*

- *Remember to bring* **night wear and toiletries.**

- *Please* **do not eat or drink** *after _____*

- *You should continue to take your medication unless you have been instructed otherwise. Take only a minimum amount of water and bring your medication into hospital with you.*

- *To avoid any anaesthetic problems, please try not to smoke for at least 24 hours before admission.*

The Gall Bladder

The gall bladder is an organ which stores and concentrates the bile secreted by the liver. Bile is needed to break down and digest fat in the intestine. The most common disease of the gallbladder is caused by gallstones. An infection or abnormally high concentration of bile may cause gallstones which vary greatly in size, shape and consistency. At increased risk for gallstones are obese women over 40, those on oral contraceptives or those with diabetes mellitus.

What is a Laparoscopic Cholecystectomy

A laparoscopic cholecystectomy is a relatively new operation for removing a diseased gallbladder. It involves the use of a laparoscope (a telescope inserted into the abdomen) in four or five small entries. This surgery takes about 90 minutes. The benefit of having this type of surgery, instead of the standard operation or open cholecystectomy, is that it spares the patient from having a large wound, thereby reducing pain after the operation. Patients can usually go home from hospital 2 to 3 days after surgery. They are generally fit for work within 7 to 10 days. Scars are barely visible. In the event of any difficulty performing this operation, for example if gall stones are too big to safely remove, the surgeon will revert to the open method of incision to obtain complete access to the gall bladder.

The operation will begin with a small cut above the navel, then two more just below the ribs. Forceps are used to remove the gall bladder through one of these cuts.

You may have some discomfort at the wound site, or you may experience pain at the tip of the shoulder (referred pain). Mild shoulder pain may last up to one week.

Day of Surgery

When you come into hospital you should be fasting. This means not eating or drinking for approximately 6 hours before the operation. After being admitted by your nurse you will be asked to dress in a hospital gown and pants (one size fits all).

The doctor may order medication to help you relax before your anaesthetic. This may be either a tablet or an injection.

After your Operation

You will return to the ward after about 2 hours. The nurse caring for you will record your temperature, pulse and blood pressure at regular intervals to ensure you are recovering from your anaesthetic. **Please let the nurse know if you have any pain or discomfort.** *You may have an intravenous drip in your arm to provide you with fluids or pain killers until you feel well enough to tolerate them orally. Your wound may be stitched, stapled or have a small dressing over it. You can get wounds wet in the shower although you should avoid soaking in baths. You may also have a drain coming from your abdomen. It is there to drain away blood. It will be removed in 1 - 2 days or when there is nothing draining. (If your doctor believes you are well enough, you may go home with the drain in place and a domiciliary nurse will visit you at home and remove it when necessary).*

You may gradually eat and drink when you feel up to it. Smoking will probably make you feel sick and should be avoided as retching will increase the pressure on your wound and cause pain. You will be encouraged to get out of bed and walk around as soon as possible to encourage a quick recovery. Your nurse will provide you with pain killing medication when you need it, but only you know how much pain you have, so please don't hesitate to ask for it.

PMP

Patient Management Program

Sir Charles Gairdner Hospital

CUSTOMER FOCUS
WESTERN AUSTRALIA

Sir Charles Gairdner Hospital

PMP

Patient Management Program

Information for patients undergoing

Hernia Repair

Enquiries

7 days / week 8.30am- 5.30pm

3464550

or mobile 014 832935

Please ring SCGH on 346 3333 and ask for Ward_____ at_____o'clock on _____ to confirm your operation and time of admission.

On admission report to SCGH - 'G' Block reception. Bring your **Medicare Card and / or Health Insurance Fund Cards** *with you. You will then be shown to your ward.*

•Do not wear any jewellery (other than possibly your wedding ring) or bring other valuables, as the hospital cannot accept responsibility for these items.

•Please arrange transport to and from the hospital as you may not be well enough to drive yourself home. You must not drive a car for at least 24 hours after a general anaesthetic.

•Shower on the morning of your admission but do not use deodorant or talcum powder. Remember to bring **nightwear and toiletries.**

Please **do not eat or drink after**_____

•If you are on medication you should continue to take it unless you have been instructed otherwise. Take only a minimal amount of water and bring your medication into hospital with you.

•To avoid anaesthetic problems, please try not to smoke for at least 24 hours before admission.

Reschedule

Although the Hospital will do everything possible to ensure your operation is not delayed or cancelled, this may occur due to the nature of the Public Hospital System, that is, emergency cases must be treated first. We will always notify you as soon as possible to reschedule your surgery for the next possible date. We thank you for your patience in this regard. We hope your stay at Sir Charles Gairdner Hospital is comfortable and meets all your needs. Please do not hesitate to ask either your nurse or your doctor if you have any questions regarding your care.

What is a hernia

A *hernia is caused when the muscles of the abdomen split, resulting in protrusion of part or all of an organ through the wall of the cavity where it is usually located. They can vary in size and may be present at birth or develop later in life.*

Hernias may be **intermittent**, *whereby they "pop out" during times of exertion such as lifting a heavy object and then "pop in" again by themselves. They may also be continuous where they are present all the time and will eventually require surgical treatment.*

Hernias are more common in men than in women and occur in all age groups. You may have heard the doctor mention your hernia is reducible or non-reducible. Reducible simply means that the hernia returns into the abdominal cavity when you lie down, whereas the non-reducible continues to bulge.

Different types of Hernia

The most common types of hernia are:

- *Umbilical Hernia*
- *Incisional Hernia*

} which are hernias of the abdominal wall

- *Inguinal Hernia*
- *Femoral Hernia*

} which are hernias of the groin

Umbilical Hernia

Usually caused from a defect that is present at birth in the ring surrounding the umbilicus (belly button). It is likely to arise in adults with increased intra abdominal pressure. Bruising and swelling around your belly button is normal.

Incisional Hernia

Caused by a weakness in the wall of the abdomen from previous surgery. People who are more at risk are those who:

- *have increased intra-abdominal pressure from coughing sneezing, vomiting, bladder obstruction, pregnancy, obesity or straining from heavy lifting.*
- *have poor nutrition (diet lacking in vitamin C, protein or zinc)*
- *suffer from conditions which slow healing (eg. diabetes)*
- *are taking some types of medications (eg. steroid therapy)*

Inguinal Hernia

In males this is usually due to weakness in the abdominal wall where the spermatic cord emerges, enters the inguinal canal and then the scrotum. In females, this is usually due to a weakness in the abdominal wall where the round ligament enters the inguinal canal and then the labia.
It may appear suddenly, causing a bulge or lump in the groin when you stand. There may also be an intermittent burning sensation. After surgery some men may experience bruising of the penis and scrotum. This will fade in time and not cause harm.

Femoral Hernia

This is a defect that occurs at the canal through which major blood vessels, the femoral blood vessels, enter the thigh. It is located close to the groin towards the upper thigh.

Day of Surgery

If *you are admitted on the day of surgery, you should come into hospital fasting. This means not eating or drinking anything for approximately 6 hours before the operation. After being admitted by your nurse, you will be asked to dress in a hospital gown and pants (one size fits all). The doctor may order a pre-medication to help you relax before your anaesthetic. This may either be a tablet or an injection.*

After your operation

You *will be taken to recovery immediately following your operation and will return to the ward when the doctor allows and your observations are stable.*

The nurse caring for you will record your blood pressure, temperature and pulse at regular intervals to ensure you are recovering from your anaesthetic. You may have an intravenous drip in your arm to provide you with fluids or pain killers until you feel well enough to tolerate them orally. It is important that you are able to pass urine in the first 8 - 10 hours and your nurse will record this.

Please let the nurse know if you have any pain or discomfort. *Your nurse will provide you with pain killing medication when you need it.* **Only you know how much pain you have,so please do not hesitate to ask for pain relief.**

You may have a drain at the wound to drain away excess blood and prevent bruising. This will be removed within 1 - 2 days or when it has stopped draining. The wound will usually be stitched with dissolvable stitches under the skin and will be covered with a dressing. After a day or so if there is no ooze, it can be left open to the air. You may get the wound wet in the shower then pat it dry. Long baths should be avoided until the wound has healed.

Prevention of Hernia recurrence

• Do not strain when using your bowels. Take a laxative if you are constipated and increase fibre in your diet. Drink plenty of water. If able to, increase your exercise. Walking is fine.

•Support or splint the wound when coughing or sneezing using a pillow or your hands pressing firmly.

• Avoid straining when lifting heavy objects. Use proper lifting techniques. Parents with young children may find this difficult to avoid, so we suggest squatting down to the child rather than lifting. If your job requires heavy lifting, your doctor may suggest a longer recovery at home. To avoid swelling and / or bruising in the groin and scrotum, it is best to wear underpants as soon as possible. These help to support the area. Take paracetamol (panadol) for relief of mild pain. We recommend you buy these before admission as prescription is not required.

Going home

You will be in hospital for 1 - 4 days, depending on the extent of your surgery, how well you recover and your suitability for discharge. We recommend that when you go home you have someone stay with you for a day or two to assist you while you recover. In some cases it may take several weeks to fully recover. You should have pain killers at home for the period immediately after your surgery.

Sudden increased swelling of the surgical area should be reported immediately.

Discharge

On discharge you may receive:

- *a discharge letter written by your doctor*
- *an outpatients or doctors appointment*
- *your own medications you brought into hospital (if any)*
- *a medical certificate if required*
- *a prescription if required*

Post Operative Exercises

Repeat the following exercises every 1 - 2 hours until you are up and around. Nurses will assist you if you have any difficulty or any questions.

Keep your lungs functioning properly!

Deep Breathing and Coughing

1. *Breathe in slowly through your nose for a count of five.*
2. *Then breathe out through your mouth.*
3. *Repeat this several times.*
4. *Then, breathe in deeply and cough. Try to cough as deeply as possible, don't just clear your throat.*
5. *Bending your knees up will help relax your stomach muscles and make these exercises more comfortable.*

Keep your skin healthy

Changing Position

1. *Remember to lie on your sides as well as on your back.*
2. *Try to change position every 2 hours.*

Promote good circulation in your legs

The following exercises should be performed slowly and rhythmically, tightening the muscles of your legs as hard as you can.

1. *Push both feet down towards the foot of the bed, hold for a count of three, then relax.*
2. *Pull both feet up towards you, hold for a count of three, then relax.*
3. *Circle both ankles, first to the right and then to the left.*
4. *Bend each knee slowly up and down.*

These exercises should be performed 5 - 10 times each, every 1 - 2 hours and combined with your breathing exercises will help you in your recovery.

We hope your stay at Sir Charles Gairdner Hospital is comfortable and meets all your needs. Please do not hesitate to ask either your nurse or your doctor if you have any questions regarding your care.

PMP

Patient Management Program

Sir Charles Gairdner Hospital

CUSTOMER FOCUS
WESTERN AUSTRALIA

Sir Charles Gairdner Hospital

PMP

Patient Management Program

Information for patients undergoing

Haemorrhoidectomy

Enquiries

7 days / week 8am- 5.30pm

3464550

or mobile 014 832935

Please ring 346 3333 and ask for Ward_____ at_____o'clock on _____ to confirm your operation.

Please report to SCGH 'G' Block reception area at _____o'clock on _____
Bring your Medicare Card and / or other Health Insurance Fund Cards *with you. You will then be shown to your ward.*

• *Please do not wear any jewellery (other than possibly your wedding ring) or bring other valuables, as the hospital cannot accept responsibility for these items.*

• *Please arrange transport to and from the hospital as you may not be well enough to drive yourself home. You must not drive a car for at least 24 hours after a general anaesthetic.*

• *Shower on the morning of your admission, but do not use any perfume, deodorant or talcum powder. Remove nail polish. Remember to bring nightwear and toiletries.*

Please **do not eat or drink after** _____

• *If you are on medication, you should continue to take it unless you have been instructed otherwise. Take only a minimum amount of water and bring your medications to hospital with you.*

• *To avoid any anaesthetic problems, please try not to smoke for at least 24 hours before admission.*

What is a Haemorrhoidectomy?

The operation you are coming into hospital to have is called a haemorrhoidectomy. Haemorrhoids can be dealt with effectively with surgery to remove them, together with a careful diet.

What are Haemorrhoids?

An enlargement of the normal spongy blood filled cushions in the wall of the anus. If these cushions are stressed from chronic constipation or repeated straining, they may become engorged with blood and bulge, becoming a haemorrhoid. Haemorrhoids may be external, protruding from the anus, or internal which bulge into the rectum.

Risk factors for haemorrhoids include obesity, prolonged sitting or standing, pregnancy, straining with chronic constipation, loss of muscle tone from normal ageing to name a few.

Day of surgery

If you are admitted on the day of surgery you should come into hospital fasting.This means not eating or drinking for approximately 6 hours prior to the operation. Your doctor may order some tablets or suppositories to help you have your bowels open before you come into hospital. If you have any problems in this area please discuss them with your nurse when you come into the ward. After being admitted by your nurse you will be asked to dress in a hospital gown and pants (one size fits all). The doctor may order a pre-medication to help you relax before your anaesthetic. This may either be a tablet or an injection.

After your operation

You will return to the ward after about two hours. The nurse caring for you will record your temperature, pulse and blood pressure at regular intervals to ensure you are recovering from your anaesthetic. Please let your nurse know if you have any pain or discomfort.

It is also important to let the nurse know if you have any discharge from your anus, such as blood, or if you need to pass water or use your bowels.

You may gradually eat or drink when you feel up to it. Smoking will probably make you feel sick and should be avoided as retching may increase pain.

Baths

You may have a small gauze pack in your anus for about 24 hours after the operation. This will fall out after you have a bowel movement, or the nurse may remove it for you if need be. Warm baths can be extremely soothing at this time, especially before removal of the pack or after you have had your bowels open. Baths help relieve discomfort, reduce swelling, clean the anal area and promote healing. The first few times you have a bowel action may be quite painful, so try to arrange for pain killers beforehand.

A small gauze dressing will be supplied for you to place on your anus for comfort and a pad supplied to ensure there is no soiling of your clothes. Please show it to your nurse if you notice anything abnormal such as an increase in bleeding.

Bowel action after surgery

As already mentioned, the first time you have your bowels open may be painful. You may pass some blood. This is normal. You should increase your water / fluid intake to 1 -2 litres daily, and try to do a little exercise as this will ensure you remain regular in the future. Your doctor may prescribe a medication to help soften your bowel action, making it easier and less painful for you while you recover from your operation. Remember, pain relief medication is available, so don't be afraid to ask for it.

Going Home

You will be in hospital for about 2 - 5 days, depending on the extent of your surgery and how well you recover. You should ensure you have pain killers at home or that you have a prescription available.

This program also provides nursing support for you after discharge if required. Just phone Sir Charles Gairdner on 346 4550 or mobile 014 832935. This service is provided 7 days a week 8.30-5.30pm. For after hours emergencies you should contact your GP or SCGH Emergency Department.

Discharge

On discharge you may receive:

- *A discharge letter written by your doctor*
- *An outpatient or doctor's appointment*
- *Your own medication you brought into hospital (if any)*
- *A medical certificate if required*
- *A prescription if required*

Although you may eat a normal diet now, it is important that you adjust to eating a high fibre diet as part of your normal lifestyle to prevent this problem from recurring. Cereal such as All Bran, and foods such as baked beans, fruit and vegetables are all high in fibre and should be eaten regularly.

You may wish to bathe twice a day, or at least after a bowel action until you feel comfortable or you visit your doctor. These baths assist healing and are very soothing.

A small amount of bleeding may occur with bowel actions for some time. If this is increasing, or is more than approximately half a cupful, contact your GP or Sir Charles Gairdner Hospital Emergency Department.

For the first few weeks after surgery, avoid sitting for long periods, for example, long car drives.

You can resume any activity or exercise as you feel able, but heavy lifting or straining should be avoided.

Promote good circulation in your legs

The following exercises should be performed slowly and rhythmically, tightening the muscles of your legs as hard as you can.

1. *Push both feet down towards the foot of the bed, hold for a count of three, then relax.*
2. *Pull both feet up towards you, hold for a count of three, then relax.*
3. *Circle both ankles, first to the right and then to the left.*
4. *Bend each knee slowly up and down.*

These exercises should be performed 5 - 10 times each, every 1 - 2 hours and combined with your breathing exercises will help you in your recovery.

Reschedule

Although the Hospital will do everything possible to ensure your operation is not delayed or cancelled, this may occur due to the nature of the public hospital system, that is, emergency cases must be treated first. We will always notify you as soon as possible to reschedule your surgery for the next possible date. We thank you for your patience in this regard.

We hope your stay at Sir Charles Gairdner Hospital is comfortable and meets all your needs. Please do not hesitate to ask either your nurse or your doctor if you have any questions regarding your care.

PMP

Patient Management Program

Sir Charles Gairdner Hospital

CUSTOMER FOCUS

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Sir Charles Gairdner Hospital

PAC

PRE-ADMISSION CLINIC

Information for patients undergoing surgery for

Varicose Veins

Please read the following instructions carefully

If you have any queries please phone 346 3333 and ask for the Pre-Admission Clinic Co-ordinator to be telepaged

Please ring ward _____at _____o'clock to confirm your operation.

•*Please come to SCGH G Block reception area at _____o'clock on _____1995. Bring your* **Medicare card and other health insurance fund cards** *with you. You will then be shown to your ward.*

•*Do not wear any jewellery (other than possibly your wedding ring) or bring other valuables, as the hospital cannot accept responsibility for these items.*

•*Please arrange transport to and from the hospital as you may not be well enough to drive yourself home. You must not drive a car for at least 24 hours after a general anaesthetic.*

•*Shower on the morning of your admission. Do not use deodorant or talcum powder. Remember to bring nightwear and toiletries as these are no longer provided by the hospital.*

•Please do not eat or drink after _____

•*If you are on medication you should continue to take it unless you have been instructed otherwise. Take only a minimal amount of water and bring your medication into hospital with you.*

•*To avoid anaesthetic problems, please try not to smoke for at least 24 hours before admission.*

What are Varicose Veins?

Varicose veins are dilated superficial veins which appear as bulging, winding vessels under the skin. They have valves which do not function correctly.

These veins are fairly common, affecting about 15% of the adult population. People particularly affected by these include those whose occupation requires long periods of standing. Obesity is also a contributing factor. Pregnancy, because of the enlarging uterus pressing on the pelvic veins, also contributes to varicose veins. Heredity may also be a factor.

If the valves in the veins do not work, there is an increase in pressure against the walls of the veins. This causes them to dilate and bulge.

People may also suffer from foot and ankle swelling at the end of the day, particularly if they have had long periods of standing still. This swelling is often relieved by resting and elevating the legs.

Surgical Management of Varicose Veins

Vein stripping or vein ligation (tying) of the veins is the surgery performed. The veins which are not working are tied, then stripped. Usually there is a cut at the ankle and in the groin through which the vein is removed. There may also be cuts at other points along the legs. Usually the stitches are under the skin and only steri-strips need to be applied.

It is preferable to elevate the legs as often as possible for the first 24 hours. TED stockings are recommended to be worn to help venous return. These may be obtained from a pharmacy prior to admission, or Surgical House in Leederville.

Day of Surgery

When you come into the hospital you should be fasting. This means not eating or drinking for approximately 6 hours prior to the operation. After being admitted by your nurse you will be asked to dress in a hospital gown and pants (one size fits all). The doctor may order a pre-medication to help you relax before your anaesthetic. This may be either a tablet or an injection.

After Your Operation

Initially you will be transferred to the recovery room until the doctor is happy for you to return to the ward. The nurse caring for you will record your temperature, pulse and blood pressure at regular intervals to ensure you are recovering from your anaesthetic. Please let your nurse know if you have any pain or discomfort. Only you know how bad your pain is. It is important to keep this under control. It is also important to let the nurse know if you have any oozing or bleeding from your groin or ankle wound. You may gradually eat or drink when you feel up to it.

Going Home

You may be in hospital for 1 - 2 days unless you are booked for day surgery. A nurse will visit you in your own home to ensure your recovery, if necessary, and to avoid you being kept in hospital. If you are interested in this, please speak with your pre-admission nurse, your ward nurse or doctor.

Discharge

On discharge you will receive:

a discharge letter written by your doctor
an outpatient's or doctor's appointment
your own medication you brought into hospital (if any)
a medical certificate if you require it
a prescription if you require it

Varicose veins can return. Please try to reduce the load on your legs.

eg. if you are overweight, try to lose some weight
avoid carrying heavy objects over long periods
elevate legs whenever possible

Instructions for a better recovery after your surgery

Repeat the following exercises every 1 - 2 hours until you are up and around. Nurses will assist you if you have any difficulty or any questions.

Keep your lungs functioning properly

Deep Breathing and Coughing

1. *Breath in slowly through your nose for a count of five.*
2. *Then breath out all the air in your lungs through your mouth.*
3. *Repeat this several times.*
4. *Then, breath in deeply, cough (try a cough as deeply as possible, don't just clear your throat).*

Keep your skin healthy

Changing Position

1. *Remember to lie on your sides as well as on your back.*
2. *Try to change position every 2 hours.*

We hope your stay at SCGH is comfortable and meets all your needs. Please do not hesitate to ask your nurse or your doctor if you have any questions regarding your care.

PAC

PRE-ADMISSION CLINIC

Sir Charles Gairdner Hospital

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APPENDIX B
INTEGRATED MEDICAL/NURSING ASSESSMENT TOOL

PREADMISSION ASSESSMENT

ATTACH PATIENT ADDRESSOGRAPH LABEL

Consultant:

Date:

Proposed Operation:

Patient Details:- Preferred Name: _____ Home phone no. _____

Age: _____ Occupation: _____ Language/s spoken: _____

Person to notify in Emergency: _____ Phone No: _____

Presenting Complaint/Symptoms Requiring Surgery

Previous Medical/Surgical History

Allergies / Sensitivities

Current Medications (including non-prescription)

Name	Dose	Frequency	Name	Dose	Frequency

PRE-ADMISSION CLINIC - MEDICAL/NURSING ASSESSMENT FORM

709

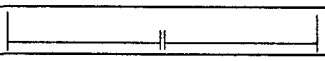
ASSESSMENT - EXAMINATION

Appearance

CVS

AB

HS



JVP

Oedema

Resp

Trachea

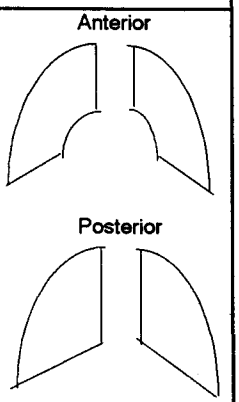
Chest expansion

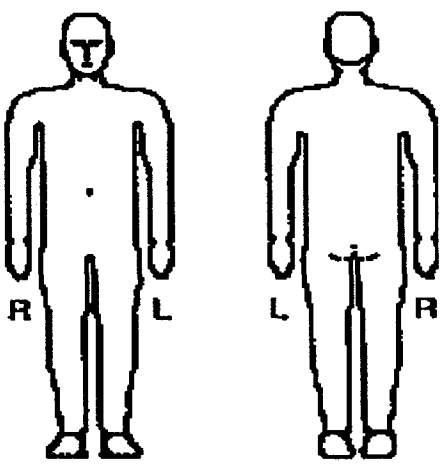
Percussion note

Air entry

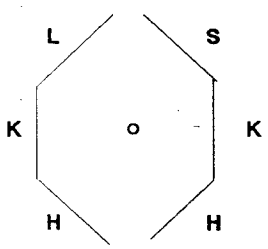
Breath sounds

Other

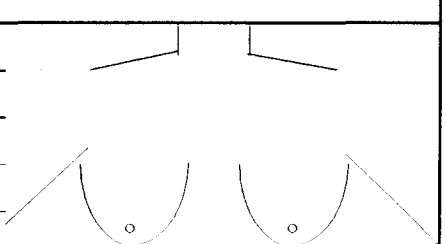




GIT



Other



Investigations Ordered

☐ FBP ☐ U&E ☐ BSL ☐ LFT ☐ ECG ☐ CXR ☐ G&H ☐ X-match ☐ No. of units ☐ Consent ☐ Weight ☐ Urinalysis ☐ Other

On Examination

Temp _____ P _____ R _____ BP _____

Significant Family/Social History _____

Problems with:

- ☐ Activity/Mobility _____
- ☐ Eating/Swallowing _____
- ☐ Sleeping _____
- ☐ Urinary _____
- ☐ Bowels _____
- ☐ Attending own ADL's _____
- ☐ Dietary Needs _____
- ☐ Skin _____

Prostheses:

- ☐ Glasses ☐ Contact Lenses
- ☐ Hearing Aid
- ☐ Walking Stick
- ☐ Dentures ☐ Top ☐ Full ☐ Partial ☐ Own Teeth ☐ Caps
  ☐ Bottom ☐ Full ☐ Partial ☐ Crowns

Patient Problems R/T Hospitalisation: _____

Pain Pre-Operatively: _____

Smoking			**Alcohol**		
☐ Yes	/ day for	years	☐ Yes	/ day for	years
☐ No	☐ Never smoked		☐ No		
☐ Gave up			☐ Gave up		
	/ day for	years		/ day for	years

Assessment completed by:

Medical: _____ Nursing: _____

Date: Time: Date: Time:

DISCHARGE PLAN

Has the patient been given post operative & post discharge education? ☐ Yes ☐ No

Date of Admission:- _____ Date of Operation:- _____

Estimated Date of Discharge:- _____

Suitable for Early Discharge	☐ Yes	☐ No	Comments: _____
Aged <60	☐ Yes	☐ No	_____
Major health problems	☐ Yes	☐ No	_____
Carer at home	☐ Yes	☐ No	_____
Access to telephone	☐ Yes	☐ No	_____
Transport organised	☐ Yes	☐ No	_____
NOK aware	☐ Yes	☐ No	_____
Referrals initiated	☐ Yes	☐ No	_____

Patient Property:

Patient requests property to be kept in Hospital safe. ☐ Yes ☐ No

Property kept at bedside at own risk. ☐ Yes ☐ No

Patient Signature: _____ Date: _____

Staff Signature: _____ (and printed name): _____

Comments:

APPENDIX C
CLINICAL PATHWAYS INCLUDING DOMICILIARY

CLINICAL PATHWAY:
DOMICILIARY CARE POST-DISCHARGE

Originating Clinical Pathway:

Procedure:

UMRN:

Surname:

ATTACH PATIENT ADDRESSOGRAPH LABEL

Forename:

DOB:

Sex:

Date: of Procedure

of Discharge

Consultant:

GP: Telephone:

PATHWAY TRACK

Ideal Track →

Stage		Day of Episode: 1	2	3	4	5
III	• Discharge or transfer to GP for follow-up					
II	• Granulation progressing • Education continuing					
I	• Assessment completed • GP liaison initiated prn					

SPECIMEN INITIAL REGISTER

Date:

Please print name clearly. All staff who have input into patient care, please complete this Register for identification purposes.

Initial	Printed Name	Desig.	Initial	Printed Name	Desig.	Initial	Printed Name	Desig.

Admit/Assess **Discharge**

Date:	**Date:**	**Date:**	**Date:**	**Date:**
Time:	**Time:**	**Time:**	**Time:**	**Time:**
Stage:	**Stage:**	**Stage:**	**Stage:**	**Stage:**
Wound care ☐	Wound care ☐	Wound care ☐	Wound care ☐	Wound care ☐
Dressing ☐	Dressing ☐	Dressing ☐	Dressing ☐	Dressing ☐
Drain care ☐	Drain care ☐	Drain care ☐	Drain care ☐	Drain care ☐
Empty ☐	Empty ☐	Empty ☐	Empty ☐	Empty ☐
Remove ☐	Remove ☐	Remove ☐	Remove ☐	Remove ☐
Emotional support Patient/sig.others ☐	Emotional support Patient/sig.others ☐	Emotional support Patient/sig.others ☐	Emotional support Patient/sig.others ☐	Emotional support Patient/sig.others ☐
Education re:care Patient/sig.others ☐	Education re:care Patient/sig.others ☐	Education re:care Patient/sig.others ☐	Education re:care Patient/sig.others ☐	Education re:care Patient/sig.others ☐
Analgesic review ☐	Analgesic review ☐	Analgesic review ☐	Analgesic review ☐	Analgesic review ☐
Liaison-medical staff ☐	Liaison-medical staff ☐	Liaison-medical staff ☐	Liaison-medical staff ☐	Liaison-medical staff ☐
Equipment	**Equipment**	**Equipment**	**Equipment**	**Equipment**
Dressing pack ☐	Dressing pack ☐	Dressing pack ☐	Dressing pack ☐	Dressing pack ☐
Ca. Alginate ☐	Ca. Alginate ☐	Ca. Alginate ☐	Ca. Alginate ☐	Ca. Alginate ☐
Tegaderm ☐	Tegaderm ☐	Tegaderm ☐	Tegaderm ☐	Tegaderm ☐
Gauze/pads ☐	Gauze/pads ☐	Gauze/pads ☐	Gauze/pads ☐	Gauze/pads ☐
Stitch cutter ☐	Stitch cutter ☐	Stitch cutter ☐	Stitch cutter ☐	Stitch cutter ☐
Staple remover ☐	Staple remover ☐	Staple remover ☐	Staple remover ☐	Staple remover ☐
Other	Other	Other	Other	Other
This visit initiated by:	This visit initiated by:	This visit initiated by:	This visit initiated by:	This visit initiated by:
Medical request ☐	Medical request ☐	Medical request ☐	Medical request ☐	Medical request ☐
Nursing initiative ☐	Nursing initiative ☐	Nursing initiative ☐	Nursing initiative ☐	Nursing initiative ☐
Patient request ☐	Patient request ☐	Patient request ☐	Patient request ☐	Patient request ☐
Time spent with pt:	Time spent with pt:	Time spent with pt:	Time spent with pt:	Time spent with pt:
Travelling time	Travelling time	Travelling time	Travelling time	Travelling time
Nurse sign:	Nurse sign:	Nurse sign:	Nurse sign:	Nurse sign:
Patient sign:	Patient sign:	Patient sign:	Patient sign:	Patient sign:

CLINICAL PATHWAY FOR DOMICILIARY CARE POST-DISCHARGE

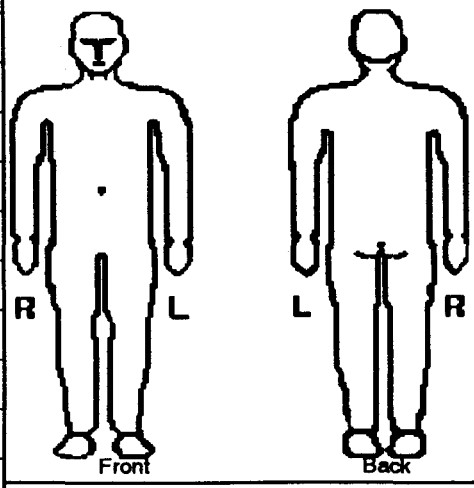
710

VARIANCE NOTES

(Date, Time and sign all entries)

WOUND

Site and description



Day 1 Stage: _____ Date: _____

Day 2 Stage: _____ Date: _____

Day 3 Stage: _____ Date: _____

Day 4 Stage: _____ Date: _____

Day 5 Stage: _____ Date: _____

CLINICAL PATHWAY FOR DOMICILIARY CARE POST-DISCHARGE

CLINICAL PATHWAY:
CHOLECYSTECTOMY

Ward:

ATTACH PATIENT ADDRESSOGRAPH LABEL

Operation:

Cholecystectomy - Open ☐
WITH Operative Cholangiogram ☐
Cholecystectomy - Laparoscopic ☐

Date: _____

Consultant: _____

Risk Factors/Comorbidities

(A Comorbidity is a condition which increases a patient's length of stay by at least one day.)

Tick as applicable; add or delete as required

PRE-OP Major
- ☐ Obesity
- ☐ Diabetes
- ☐ Jaundice

PRE-OP Minor
- ☐ Smoking <3/12 pre-op

POST-OP Major
- ☐ Dysuria
- ☐ Pain
- ☐ Operative Progression

POST-OP Minor
- ☐ Redo
- ☐ Urinary Retention
- ☐ Wound Infection

PATHWAY TRACK

Ideal Track = ✱→

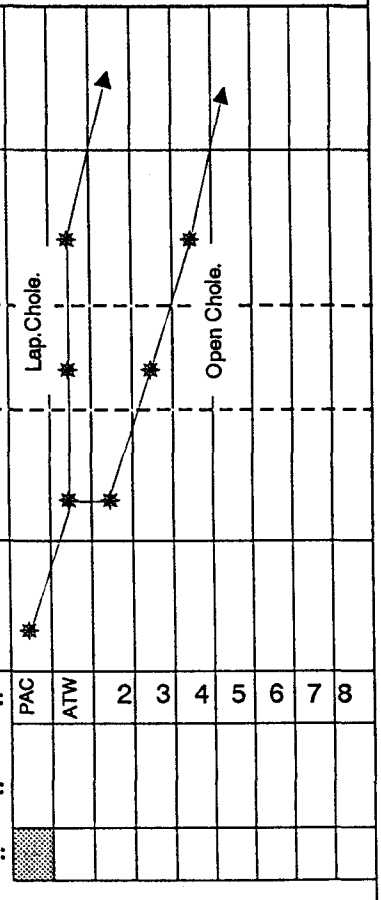
Stage: V
- **Discharge Stage**
- Self caring
- Assessment re: PAC follow-up
- GP letter with patient

Stage: IV
- **Post-Operative Stage - Non-Acute**
- Ambulating gently
- Tolerating Diet
- Educate re: drain / T-tube
- Prescriptions, GP letter and Discharged Summary written
- OPD appt arranged
- Transport home organised

Stage: III
- **Post-Operative Stage - Acute**
- Haemodynamically stable
- Drain / T-tube care

Stage: II
- **Admission Stage** +
- Baseline obs attended
- Continue/Reinforce Education
- **Pre-operative Stage**
- Fasted 8 hrs
- Fit for proposed procedure

Stage: I
- **Pre-Admission Stage**
- Anaesthetic check OK
- Consent Form signed
- Medical and Nursing assesssment OK
- Education and Discharge plan commenced



Day of Admission Episode:	PAC	ATW	2	3	4	5	6	7	8
Date:									
Post-op Day:									

Details of Admission to Ward

Date: _____ **Time:** _____

SPECIMEN INITIAL REGISTER

Please print name clearly. All staff who have responsibility for direct patient care, please complete this Register for identification purposes.

Initial	Printed Name	Desig.	Initial	Printed Name	Desig.	Initial	Printed Name	Desig.

CLINICAL PATHWAY FOR CHOLECYSTECTOMY

710

Cholecystectomy

Laparoscopic ☐
Open ☐

		Stage: I Pre-admit	II Admit and Pre-op.	III Post-op. Acute	IV Post-op. Non-Acute	V ** Discharge
Consults and Assessments	Medical Consult	Medical Review	Medical Update	Review-Surgeon/	Review-Surgeon/	
		Sign Consent		Registrar/Resident	Registrar/Resident	
		Mark site				
	Anaesthetist	Review,	Anaesthetic Check			
		Order pre-med				
	Nursing	Assessment				
Investigations	Biochemistry	U&E, LFT				
		Amylase				
	Haematology	FBP				
	Radiology	CXR				
	Other	ECG if >45yrs				
Medications	Pre-medication	Ordered	Given			
	Analgesia			prn	prn	
	Other	Chart Meds	Continue usual medications		----------	Check
Observations	Identity Band		Check and apply			
	Weight					
	Early Discharge Suitability	Check at	Check			
	Consent	pre-admission	on			
	Allergies	assessment	admission	Post-op obs		
	T°, P, R, BP			½hrly-2hrs,		
	Wound			1hrly-2hrs,	4/24	Daily
	Deep Breathing/Leg X's			2hrly-4hrs,	Cease	
	IV site			then 4hrly	Cease	
Treatments	Dressing			Intact post-op	Dry dressing	Dry dressing
	Drain / T-tube			Assess re: removal		
Nutrition & Hydration	Oral	As desired	Fasting	Free Fluids	Low fat	As tolerated
	IV			Continuous	Cease	
Elimination	Bladder	Assess	Check	Confirm	Check	Check
	Bowels			post-op void	post-op BO	
Hygiene		Self care	Self care	Full assist	Part. assist	Self care
			Pre-op shower			
Activity & Rest		As desired	Ambulant	Assist	Gentle	As desired
			pre-op		ambulation	
Teaching and Discharge Preparation		Pre-op Info.		Continue/	Write scripts,	GP letter with
		& Education,	Continue/	Reinforce	GP letter &	patient
		including	Reinforce	Education	Disch Summary	Discharge 1100hrs
		Discharge Plan,	Education	Educate re:	Arrange OPD appt.	Assess re:
		Deep breathing & leg x's		Home meds &	Organise Transport	PAC follow-up
				Drains		

An initial is required by any Health personnel who have responsibility for direct patient care.
The practitioner can be identified from the Specimen Initial Register on the front cover.

	Pre-admit			Admit											
Date:	/ /			/ /			/ /			/ /			/ /		
Stage:															
	AM	PM	N	AM	PM	N	AM	PM	N	AM	PM	N	AM	PM	N
Medical															
Nursing															
Other															
Other															
Medical															
Nursing															
Other															
Other															

OBSERVATIONS

Suitable for Early Discharge	Yes/No
Explanation of pre-procedure Care	Yes/No
Explanation of post-procedure Care	Yes/No

	Date	Time	Temp.	HR	Resp.	BP	Wound	IV Site	Comments (Pain, Conscious State)	Initial
Baseline Obs PAC										
ATW										
RTW										

Proceed to 4/24 Observation sheets when this grid is filled

KEY TO CHART: Temperature: • Black Pulse: • Red Apex Rate: x Black Blood Pressure: Supine ↕ Black Erect ↕ Red

Date:					
Time:					

Temperature (Celcius), Pulse (per minute), Blood Pressure (mmHg)

240 230 220 210 200 40° 190 180 170 160 150 39° 140 130 120 110 100 38° 90 80 70 60 50 37° 40 30 20 10 0 36°

Respirations:					
Bowels:					
Weight:					
Urinalysis:					

CLINICAL PATHWAYS

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If you have any questions regarding this Clinical Pathway, your care or the treatment you will be receiving while you are a patient, do not hesitate to ask your Doctor or Nurse.

DISCHARGE / TRANSFER DETAILS

Date: _____ **Time:** _____ **Signed:** _____
(Printed Name)

Discharge/Transferred to: _____
eg Home, other Ward, if so which one

CODING INFORMATION

Clinical Pathway = Laparoscopic Cholecystectomy
MDC = 3 DRGs eg = 312

All significant operations and procedures performed during the admission are coded. (Please indicate with a Tick)

FINAL DIAGNOSIS

COMPLICATIONS

PROCEDURES DURING ADMISSION

CONDITIONS EXTENDING LENGTH OF STAY

Infection
- Urinary
- Chest
- Phlebitis
- Septicaemia

Renal Failure
- Acute
- Chronic

- Pulmonary Embolism
- Asthma
- Venous Thrombosis
- Stroke
- TIA

- Diabetes
- Anaemia

Other:

Length of Stay
_____ Days

CLINICAL PATHWAY:
HAEMORRHOIDECTOMY
Ward:

ATTACH PATIENT ADDRESSOGRAPH LABEL

Operation: **Date:** _____

Consultant: _____

Risk Factors/Comorbidities

(A Comorbidity is a condition which increases a patient's length of stay by at least one day.)

Tick as applicable; add or delete as required

PRE-OP Major	PRE-OP Minor	POST-OP Major	POST-OP Minor
☐ Obesity	☐ Smoking <3/12 pre-op	☐ Dysuria	☐ Redo
☐ Diabetes		☐ Pain	☐ Urinary Retention
		☐ Haemorrhage	☐ Wound Infection

PATHWAY TRACK

Ideal Track = ✱→

V
- **Discharge Stage**
- Self caring
- Assessment re: PAC follow-up
- GP letter with patient

IV
- **Post-Operative Stage - Non-Acute**
- Ambulating gently
- Tolerating Diet
- Dressing and pack removed
- Sitz bath regime in hand
- Prescriptions, GP letter & Discharge Summary written
- OPD appt arranged
- Transport home organised

III
- **Post-Operative Stage - Acute**
- Haemodynamically stable

II
- **Admission Stage** + **Pre-operative Stage**
- Baseline obs attended
- Continue/Reinforce Education
- Anaesthetic check OK
- Fasted 8 hrs
- Fit for proposed procedure

I
- **Pre-Admission Stage**
- Consent Form signed
- Medical and Nursing assesssment OK
- Education and Discharge plan commenced

Stage:

Day of Admission Episode:	PAC	ATW	2	3	4	5	6
Date:							
Post-op Day:							

Details of Admission to Ward

Date: _____ **Time:** _____

SPECIMEN INITIAL REGISTER

Please print name clearly. All staff who have responsibility for direct patient care, please complete this Register for identification purposes.

Initial	Printed Name	Desig.	Initial	Printed Name	Desig.	Initial	Printed Name	Desig.

CLINICAL PATHWAY FOR HAEMORRHOIDECTOMY

710

In use 3/1/95 9/4/96 NSL

Haemorrhoidectomy

Stage:	I	II	III	IV	V
	Pre-admit	**Admit and Pre-op.**	**Post-op. Acute**	**Post-op. Non-Acute**	**Discharge**
Consults and Assessments	Medical Consult	Medical Review	Medical Update	Review-Surgeon/	Review-Surgeon/	
		Sign Consent		Registrar/Resident	Registrar/Resident	
	Anaesthetist		Anaesthetic Check			
			Order pre-med			
	Nursing	Assessment				
Investigations	Biochemistry	U&E				
	Haematology	FBP				
	Radiology	CXR				
	Other	ECG if >45				
Medications	Pre-medication		Ordered & Given			
	Analgesia			PRN	PRN	
	Other	Chart Meds	Continue usual medications		→	→
	Aperients			BD	BD	BD
Observations	Identity Band		Check and apply			
	Weight					
	Early Discharge Suitability	Check at pre-admission assessment	Check on admission			
	Consent					
	Allergies			Post-op obs		
	T°, P, R, BP			½hrly-2hrs,		
	Wound			1hrly-2hrs,	4/24	Daily
	Deep Breathing/Leg X's			2hrly-4hrs,	Cease	
	IV site			then 4hrly	Cease	
Treatments	Dressing			BD + prn	BD + post BO	BD + post BO
	Pack				Remove	
Nutrition & Hydration	Oral	As desired	Fasting	Free Fluids	High Fibre	High Fibre
	IV			Continuous	Cease	
Elimination	Bladder	Assess	Check	Confirm	Check	Check
	Bowels			post-op void	post-op BO	
Hygiene		Self care	Self care	Full assist	Part. assist	Self care
	Wound-Sitz Bath		Pre-op shower		BD + post BO	BD + post BO
Activity & Rest		As desired	Ambulant pre-op	Assist	As desired	As desired
Teaching and Discharge Preparation		Pre-op Info. & Education, including Discharge Plan, Deep breathing & leg x's	Continue/ Reinforce Education	Continue/ Reinforce Education Educate re: Home meds &	Write scripts, GP letter & Disch Summary Arrange OPD appt. Organise Transport	GP letter with patient Discharge 1100hrs **Assess** re: PAC follow-up

An initial is required by any Health personnel who have responsibility for direct patient care.
The practitioner can be identified from the Specimen Initial Register on the front cover.

	Pre-admit			**Admit**											
Date:	/ /			/ /			/ /			/ /			/ /		
Stage:															
	AM	**PM**	**N**	**AM**	**PM**	**N**	**AM**	**PM**	**N**	**AM**	**PM**	**N**	**AM**	**PM**	**N**
Medical															
Nursing															
Other															
Other															
Medical															
Nursing															
Other															
Other															

CLINICAL PATHWAYS

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If you have any questions regarding this Clinical Pathway, your care or the treatment you will be receiving while you are a patient, do not hesitate to ask your Doctor or Nurse.

DISCHARGE / TRANSFER DETAILS

Date: _____ **Time:** _____ **Signed:** _____
(Printed Name)

Discharge/Transferred to: _____
eg Home, other Ward, if so which one

CODING INFORMATION

Clinical Pathway = Haemorrhoidectomy
MDC eg = 6 DRGs eg = 312

All significant operations and procedures performed during the admission are coded. (Please indicate with a Tick)

FINAL DIAGNOSIS

COMPLICATIONS

PROCEDURES DURING ADMISSION

CONDITIONS EXTENDING LENGTH OF STAY

Infection
- ☐ Urinary
- ☐ Chest
- ☐ Phlebitis
- ☐ Septicaemia

Renal Failure
- ☐ Acute
- ☐ Chronic

- ☐ Pulmonary Embolism
- ☐ Asthma
- ☐ Venous Thrombosis
- ☐ Stroke
- ☐ TIA

- ☐ Diabetes
- ☐ Anaemia

Other:
- ☐ _____
- ☐ _____

Length of Stay

_____ Days

CLINICAL PATHWAY:
HERNIA REPAIR
Ward:

ATTACH PATIENT ADDRESSOGRAPH LABEL

Operation: (Please tick as applicable)

- ☐ Inguinal Hernia Repair-Right
- ☐ Inguinal Hernia Repair-Left
- ☐ Umbilical Hernia Repair
- ☐ Incisional Hernia Repair

Site: _____

Other: ☐ _____ ☐ _____ ☐

Date: _____

Consultant: _____

Risk Factors/Comorbidities

(A Comorbidity is a condition which increases a patient's length of stay by at least one day.)

Tick as applicable; add or delete as required

PRE-OP Major
- ☐ Obesity
- ☐ Diabetes

PRE-OP Minor
- ☐ Smoking <3/12 pre-op

POST-OP
- ☐ Redo
- ☐ Urinary Retention
- ☐ Wound Infection

PATHWAY TRACK

Ideal Track = ✱→

V
- **Discharge Stage**
- Self caring
- Assessment re: PAC follow-up
- GP letter with patient

IV
- **Post-Operative Stage - Non-Acute**
- Ambulating gently
- Tolerating Diet
- Dressing and drain removed
- OPD appt arranged
- Transport home organised
- Scripts,GP letter&Disch.Summ.written

III
- **Post-Operative Stage - Acute**
- Haemodynamically stable

II
- **Admission Stage + Pre-operative Stage**
- Baseline obs attended
- Continue/Reinforce Education
- Anaesthetic check OK
- Fasted 6 - 8 hrs
- Fit for proposed procedure

I
- **Pre-Admission Stage**
- Consent Form signed
- Medical & Nursing assesssment OK
- Education & Discharge plan commenced

Stage:

Day of Admission Episode:	PAC	ATW	2	3	4	5	6
Date:							
Post-op Day:							

Details of arrival in Ward.

Date: _____ **Time:** _____

SPECIMEN INITIAL REGISTER

Please print name clearly. All staff who have responsibility for direct patient care, please complete this Register for identification purposes.

Initial	Printed Name	Desig.	Initial	Printed Name	Desig.	Initial	Printed Name	Desig.

In use 3/1/95 • 9/4/96 NSL

CLINICAL PATHWAY FOR HERNIA REPAIR

Hernia Repair

Inguinal - Right ☐
Inguinal - Left ☐
Umbilical ☐
Incisional ☐

		Stage: I Pre-admit	II Admit and Pre-op.	III Post-op. Acute	IV Post-op. Non-Acute	V Discharge
Consults and Assessments	Medical Consult	Medical R/v	Medical R/v	R/v - Surgeon,	R/v - Surgeon,	
		Sign Consent	Mark site	Reg, RMO	Reg, RMO	
	Anaesthetist		Review, Order pre-med			
	Nursing	Assessment				
Investigations	Biochemistry	U&E				
	Haematology	FBP				
	Radiology	CXR				
	Other	ECG if >45			*	
Medications	Pre-medication		Ordered/given			
	Analgesia			prn	prn	
	Other	Chart Meds	Continue usual medications			Check
Observations	Identity Band		Check and apply			
	Weight					
	Early Discharge Suitability	Check at pre-admission assessment	Check on admission			
	Consent					
	Allergies			Post-op obs		
	T°, P, R, BP			½hrly-2hrs,		
	Wound			1hrly-2hrs,	4/24	Daily
	Deep Breathing/Leg X's			2hrly-4hrs,	Cease	
	IV site			then 4hrly	Cease	
Treatments	Skin prep		Clip, no shave			
	Dressing			Intact post-op	Take down	Check wound
	Drain					
Nutrition & Hydration	Oral	As desired	Fast 6-8 hrs	Free Fluids	As desired	As desired
	IV			Continuous	Cease	
Elimination	Bladder	Assess	Check	Confirm	Check	Check
	Bowels			post-op void	post-op BO	
Hygiene		Self care	Self care	Full assist	Part. assist	Self care
			Pre-op shower			
Activity & Rest		As desired	Ambulant pre-op	Assist	Gentle ambulation	As desired
Teaching and Discharge Preparation		Pre-op Info. & Education, including Discharge Plan, Deep breathing & leg x's	Continue/ Reinforce Education	Continue/ Reinforce Education Educate re: Home meds &	Write scripts, GP letter & Disch Summary Arrange OPD appt. Organise Transport	GP letter with patient Discharge 1100hrs **Assess** re: PAC follow-up

An initial is required by any Health personnel who have responsibility for direct patient care.
The practitioner can be identified from the Specimen Initial Register on the front cover.

	Pre-admit			Admit											
Date:	/ /			/ /			/ /			/ /			/ /		
Stage:															
	AM	PM	N	AM	PM	N	AM	PM	N	AM	PM	N	AM	PM	N
Medical															
Nursing															
Other															
Other															
Medical															
Nursing															
Other															
Other															

OBSERVATIONS

Suitable for Early Discharge Yes/No
Explanation of pre-procedure Care Yes/No
Explanation of post-procedure Care Yes/No

	Date	Time	Temp.	HR	Resp.	BP	Wound	IV Site	Comments (Pain, Conscious State)	Initial
Baseline Obs PAC										
ATW										
RTW										

Proceed to 4/24 Observation sheets when this grid is filled

KEY TO CHART: Temperature: • Black Pulse: • Red Apex Rate: x Black Blood Pressure: Supine ↕ Black Erect ↕ Red

Date:

Time:

Temperature (Celcius), Pulse (per minute), Blood Pressure (mmHg)

240
230
220
210
200 40°
190
180
170
160
150 39°
140
130
120
110
100 38°
90
80
70
60
50 37°
40
30
20
10
0 36°

Respirations:

Bowels:

Weight:

Urinalysis:

CLINICAL PATHWAYS

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If you have any questions regarding this Clinical Pathway, your care or the treatment you will be receiving while you are a patient, do not hesitate to ask your Doctor or Nurse.

DISCHARGE / TRANSFER DETAILS

Date: _____ **Time:** _____ **Signed:** _____

(Printed Name)

Discharge/Transferred to: _____

eg Home, other Ward, if so which one

CODING INFORMATION

Clinical Pathway = Hernia Repair
MDC eg = 6 DRGs eg = 308, 309, 310, 312, 313, 314,

All significant operations and procedures performed during the admission are coded. (Please indicate with a Tick)

FINAL DIAGNOSIS

COMPLICATIONS

PROCEDURES DURING ADMISSION

CONDITIONS EXTENDING LENGTH OF STAY

Infection
- Urinary
- Chest
- Phlebitis
- Septicaemia

Renal Failure
- Acute
- Chronic

- Pulmonary Embolism
- Asthma
- Venous Thrombosis
- Stroke
- TIA

- Diabetes
- Anaemia

Other:
- _____
- _____

Length of Stay

_____ Days

CLINICAL PATHWAY:
VARICOSE VEIN SURGERY
Ward:

ATTACH PATIENT ADDRESSOGRAPH LABEL

Operation:

Left ☐
Right ☐
☐

Date: _____

Consultant: _____

Risk Factors/Comorbidities

(A Comorbidity is a condition which increases a patient's length of stay by at least one day.)

Tick as applicable; add or delete as required

PRE-OP Major	PRE-OP Minor	POST-OP Major	POST-OP Minor
☐ Obesity	☐ Smoking <3/12 pre-op	☐ Dysuria	☐ Redo
☐ Diabetes		☐ Pain	☐ Urinary Retention
☐ Varicose Ulcers		☐ Haematoma	☐ Wound Infection

PATHWAY TRACK

Ideal Track = ✸→

Stage: V
- **Discharge Stage**
- Self caring
- Assessment re: PAC follow-up
- GP letter with patient

IV
- **Post-Operative Stage - Non-Acute**
- Ambulating gently
- Tolerating Diet
- Dressing as per Dr's regime
- OPD appt arranged
- Transport home organised
- Scripts, GP letter & Disch.Summ written

III
- **Post-Operative Stage - Acute**
- Haemodynamically stable

II
- **Admission Stage + Pre-operative Stage**
- Baseline obs attended
- Continue/Reinforce Education
- Anaesthetic check OK
- Fasted 6 - 8 hrs
- Fit for proposed procedure

I
- **Pre-Admission Stage**
- Consent Form signed
- Medical and Nursing assesssment OK
- Education and Discharge plan commenced

Day of Admission Episode:	PAC	ATW	2	3	4	5	6
Date:							
Post-op Day:							

Details of admission to Ward.

Date: _____ **Time:** _____

SPECIMEN INITIAL REGISTER

Please print name clearly. All staff who have responsibility for direct patient care, please complete this Register for identification purposes.

Initial	Printed Name	Desig.	Initial	Printed Name	Desig.	Initial	Printed Name	Desig.

CLINICAL PATHWAY FOR VARICOSE VEIN SURGERY

In use:
3/1/95
9/4/96
710

Varicose Vein Surgery

		Stage: I Pre-admit	II Admit and Pre-op.	III Post-op. Acute	IV Post-op. Non-Acute	V Discharge
Consults and Assessments	Medical Consult	Medical R/v	Medical R/v	R/v - Surgeon,	R/v - Surgeon,	
		Sign Consent	Mark site	Reg, RMO	Reg, RMO	
	Anaesthetist		Review, Order			GB1-Anaes.Chk
			pre-med			
	Nursing	Assessment				
Investigations	Biochemistry					
	Haematology					
	Radiology					
	Other	ECG if > 45				
Medications	Pre-medication		Ordered/given			
	Analgesia			prn	prn	
	Other	Chart Meds	Continue usual medications - - - - - - - →			Check
Observations	Identity Band		Check and apply			
	Weight Early Discharge Suitability Consent Allergies T°, P, R, BP	Check at pre-admission assessment	Check on admission	Post-op obs		
	T°, P, R, BP Wound			½hrly-2hrs, 1hrly-2hrs,	4/24	Daily
	Deep Breathing/Leg X's			2hrly-4hrs,	Cease	
	IV site			then 4hrly	Cease	
Treatments						
	Dressing			Intact post-op	Rebandage prn	Rebandage prn
Nutrition & Hydration	Oral	As desired	Fast 6-8 hrs	Free Fluids	As desired	As desired
	IV			Continuous	Cease	
Elimination	Bladder Bowels	Assess	Check	Confirm post-op void	Check post-op BO	Check
Hygiene		Self care	Self care	Full assist	Part. assist	Self care
			Pre-op shower			
Activity & Rest		As desired	Ambulant	Assist	Gentle	As desired
			pre-op		ambulation	
Teaching and Discharge Preparation		Pre-op Info.		Continue/	Write scripts,	GP letter with
		& Education,	Continue/	Reinforce	GP letter &	patient
		including	Reinforce	Education	Disch Summary	Discharge 1100hrs
		Discharge Plan,	Education	Educate re:	Arrange OPD appt.	**Assess** re:
		Deep breathing, leg x's		Home meds &	Organise Transport	PAC follow-up
		and TEDs				

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The practitioner can be identified from the Specimen Initial Register on the front cover.

	Pre-admit			Admit											
Date:	/ /			/ /			/ /			/ /			/ /		
Stage:															
	AM	PM	N	AM	PM	N	AM	PM	N	AM	PM	N	AM	PM	N
Medical															
Nursing															
Other															
Other															
Medical															
Nursing															
Other															
Other															

OBSERVATIONS

Suitable for Early Discharge Yes/No
Explanation of pre-procedure Care Yes/No
Explanation of post-procedure Care Yes/No

	Date	Time	Temp.	HR	Resp.	BP	Wound	IV Site	Comments (Pain, Conscious State)	Initial
Baseline Obs PAC										
ATW										
RTW										

Proceed to 4/24 Observation sheets when this grid is filled

KEY TO CHART: Temperature: • Black Pulse: • Red Apex Rate: x Black Blood Pressure: Supine ↕ Black Erect ↕ Red

Date:

Time:

Temperature (Celcius), Pulse (per minute), Blood Pressure (mmHg)

240
230
220
210
200 40°
190
180
170
160
150 39°
140
130
120
110
100 38°
90
80
70
60
50 37°
40
30
20
10
0 36°

Respirations:
Bowels:
Weight:
Urinalysis:

CLINICAL PATHWAYS

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If you have any questions regarding this Clinical Pathway, your care or the treatment you will be receiving while you are a patient, do not hesitate to ask your Doctor or Nurse.

DISCHARGE / TRANSFER DETAILS

Date: _____ **Time:** _____ **Signed:** _____
(Printed Name)

Discharge/Transferred to: _____
eg Home, other Ward, if so which one

CODING INFORMATION

Clinical Pathway = Varicose Vein Surgery
MDC eg = 4 DRGs eg = 239

All significant operations and procedures performed during the admission are coded. (Please indicate with a Tick)

FINAL DIAGNOSIS

COMPLICATIONS

PROCEDURES DURING ADMISSION

CONDITIONS EXTENDING LENGTH OF STAY

Infection
- Urinary
- Chest
- Phlebitis
- Septicaemia

Renal Failure
- Acute
- Chronic

- Pulmonary Embolism
- Asthma
- Venous Thrombosis
- Stroke
- TIA

- Diabetes
- Anaemia

Other:
- _____
- _____

Length of Stay
_____ Days

CLINICAL PATHWAY:
BREAST SURGERY - MINOR

Ward:

ATTACH PATIENT ADDRESSOGRAPH LABEL

Operation: Tick as applicable

- Breast Lumpectomy ☐
- Microdochectomy ☐
- Removal Implants ☐
- Hookwire Excisional Biopsy ☐
- Axillary Clearance ☐

OTHER: ..... ☐

..... ☐

Date: _____

Consultant: _____

Risk Factors / Comorbidities

Tick as applicable; add or delete as indicated

PRE-OP

- ☐ Cardiovascular Problems - Angina, Past MI
- ☐ Valvular Heart Disease
- ☐ Respiratory Problems - CAL
- ☐ Diabetes
- ☐ Physical Impairment
- ☐ Anticoagulants
- ☐ Drug Allergies

Other: ☐ _____ ☐ _____

POST-OP

- ☐ Haemorrhage

Other: ☐ _____

PATHWAY TRACK

Ideal track = ✱→

IV • Discharge
- Ready for home
- Anaesthetic review attended
- GP letter written on telephoned
- Assessment re: PAC follow-up
- Follow-up appt.arranged
- Education attended - Patient, Relative, Support Person
- Transport organised

III • Post-op
- Observations Stable
- Pain managed @ <5/10 pain score
- Dentures replaced
- Post procedure instruction sheet/book completed
- Procedure discussed with patient

II • Admission / Pre-op Stage
- Assessment completed - Nursing & Medical
- Fasted 6hrs
- Pre-op prep.attended
- Consent checked
- Identity Band in situ
- Education continued
- Discharge Plan Checked
- X-rays available
- Old notes available

I • Pre-admission Stage
- Medical Review attended
- Assessment commenced-Nursing & Medical
- Consent signed
- Education commenced
- Discharge Planning commenced

Stage:

Day of Admission Episode:	PAC	ATW	2	3	4	5	6
Date:							
Post-op Day:							

Details of Admission to Ward

Date: _____ **Time:** _____

SPECIMEN INITIAL REGISTER

Please print name clearly. All staff who have responsibility for direct patient care, please complete this Register for identification purposes.

Initial	Printed Name	Desig.	Initial	Printed Name	Desig.	Initial	Printed Name	Desig

In use 3/7/95 Draft 10 - 9/4/96 NSL

CLINICAL PATHWAY FOR BREAST SURGERY - MINOR

Breast Surgery - Minor

		Stage: I PRE-ADMISSION	II ADMISSION	III POST-OP	IV DISCHARGE
Consults and Assessments	Medical	Review, sign consent	Update Check consent		
	Anaesthetist		R/v;order pre-med		Review
	Notes	Arrange - Old Notes			
	Nursing	Assess/Educate	? Results to hand		
Investigations	Radiology	Old X-rays available			
		CXR in Pre-admit clinic			
	Other	ECG if >45			
Medications	Premedication		Order / Give		
	Analgesia			IM ☐ Oral ☐	
	Antibiotics				
	Home meds	Check and chart	Continue →		Check
Observations	Identity Band		Check and apply		
	Dentures		Remove prn	Replace prn	
	Weight	Check at pre-admission assessment	Check on admission		
	Consent				
	Allergies				
	T°, P, R, BP			Post-op obs: ½hrly - 2hrs, then 1/24 till discharge	
	Emotional State				
	Conscious State				
	Wound				
	IV site			Check	Remove IV
	Pain	Educate re: Pain	Educate re: Pain	Manage pain @ <5/10 pain score	
Treatments	Dressings			Intact	
Nutrition & Hydration	Diet	As desired	Fasting	As desired	As desired
	Fluids				
	IV			Remove when tolerating diet & fluids	
Elimination		Check	Check	Check post-op void	
Hygiene - Activity & Rest		Self care As desired		Assist as req RIB post-op	Self care Ambulant
Teaching and Discharge Preparation		Pre-op information+ Education incl. Discharge Plan & PAC post-discharge follow-up	Explain procedural care, organise home transport & initial overnight care	Complete post-procedure instruction sheet - Discuss with patient/relative	Ready for home Arrange OPD appt Discharge Assess re: PAC follow-up

An initial is required by any Health personnel who have responsibility for direct patient care.
The practitioner can be identified from the Specimen Initial Register on the front cover.

	Pre-admit			Admit								
Date:	/ /			/ /			/ /			/ /		
Stage:												
	AM	PM	N	AM	PM	N	AM	PM	N	AM	PM	N
Medical												
Nursing												
Other												
Medical												
Nursing												
Other												

OBSERVATIONS

Suitable for Early Discharge Yes/No
Explanation of pre-procedure Care Yes/No
Explanation of post-procedure Care Yes/No

	Date	Time	Temp.	HR	Resp.	BP	Wound	IV Site	Comments (Pain, Conscious State)	Initial
Baseline Obs PAC										
ATW										
RTW										

Proceed to 4/24 Observation sheets when this grid is filled

KEY TO CHART: Temperature: • Black Pulse: • Red Apex Rate: x Black **Blood Pressure:** Supine ↕ Black Erect ↕ Red

Date:					
Time:					

Temperature (Celcius), Pulse (per minute), Blood Pressure (mmHg)

240
230
220
210
200 40°
190
180
170
160
150 39°
140
130
120
110
100 38°
90
80
70
60
50 37°
40
30
20
10
0 36°

Respirations:
Bowels:
Weight
Urinalysis

CLINICAL PATHWAYS

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If you have any questions regarding this Clinical Pathway, your care or the treatment you will be receiving while you are a patient, do not hesitate to ask your Doctor or Nurse.

DISCHARGE / TRANSFER DETAILS

Date: _____ **Time:** _____ **Signed:** _____
(Printed Name)

Discharge/Transferred to: _____
eg Home, other Ward, if so which one

CODING INFORMATION

Clinical Path = Breast Surgery - Minor Day Procedures
MDC eg = 9 DRGs eg = 483 - 498

All significant operations and procedures performed during the admission are coded. (Please indicate with a tick)

FINAL DIAGNOSIS

☐ ☐ ☐ ☐

COMPLICATIONS

☐ ☐ ☐ ☐

PROCEDURES DURING ADMISSION

☐ ☐ ☐ ☐

CONDITIONS EXTENDING LENGTH OF STAY

Infection
- ☐ Urinary
- ☐ Chest
- ☐ Phlebitis
- ☐ Septicaemia

Renal Failure
- ☐ Acute
- ☐ Chronic

- ☐ Pulmonary Embolism
- ☐ Asthma
- ☐ Venous Thrombosis
- ☐ Stroke
- ☐ TIA

- ☐ Diabetes
- ☐ Anaemia

Other:
- ☐ _____
- ☐ _____

CLINICAL PATHWAY:
BREAST SURGERY - MAJOR
Ward:

ATTACH PATIENT ADDRESSOGRAPH LABEL

Operation:

_____

_____

_____

Date: _____

Consultant: _____

Risk Factors/Comorbidities

(A Comorbidity is a condition which increases a patient's length of stay by at least one day.)

Tick as applicable; add or delete as required

PRE-OP Major	PRE-OP Minor	POST-OP Major	POST-OP Minor
☐ Obesity	☐ Smoking <3/12 pre-op	☐ Dysuria	☐ Redo
☐ Diabetes		☐ Pain	☐ Urinary Retention
☐ Other: _____		☐ Lymphoedema	☐ Wound Infection
_____		☐ Other: _____	
		_____	

PATHWAY TRACK

Ideal Track = ✱→

V
- **Discharge Stage**
- Self caring
- GP letter with patient

IV
- **Post-Operative Stage - Non-Acute**
- Ambulating gently
- Tolerating Diet
- Dressing checked
- Prescriptions, GP letter & Discharge Summary written
- OPD appt arranged
- Transport home organised

III
- **Post-Operative Stage - Acute**
- Haemodynamically stable

II
- **Admission Stage** + **Pre-operative Stage**
- Baseline obs attended
- Continue/Reinforce Education
- Anaesthetic check OK
- Fasted 6 hrs
- Fit for proposed procedure

I
- **Pre-Admission Stage**
- Consent Form signed
- Medical and Nursing assesssment OK
- Education and Discharge plan commenced

Stage:

Day of Admission Episode:	PAC	ATW	2	3	4	5	6
Date:							
Post-op Day:							

Details of Admission to Ward

Date: _____ **Time:** _____

SPECIMEN INITIAL REGISTER

Please print name clearly. All staff who have responsibility for direct patient care, please complete this Register for identification purposes.

Initial	Printed Name	Desig.	Initial	Printed Name	Desig.	Initial	Printed Name	Desig.

CLINICAL PATHWAY FOR BREAST SURGERY - MAJOR

In use 3/1/95 2 - 9/4/96

710

Breast Surgery - Major

		Stage: I Pre-admit	II Admit and Pre-op.	III Post-op. Acute	IV Post-op. Non-Acute	V Discharge
Consults and Assessments	Medical Consult	Medical Review	Medical Update	Review-Surgeon/	Review-Surgeon/	
		Sign Consent		Registrar/Resident	Registrar/Resident	
			Mark site			
	Anaesthetist	Review, order	Anaesthetic Check			
		pre-med				
	Nursing	Assessment				
Investigations	Biochemistry	U&E				
	Haematology	FBP				
		G & H				
	Radiology	CXR				
	Other	ECG				
Medications	Pre-medication	Ordered	Given			
	Analgesia			prn	prn	
	Other	Chart Meds	Continue usual medications →			Check
Observations	ID Band		Check and apply			
	Weight					
	Early Discharge Suitability	Check at pre-admission assessment	Check on admission			
	Consent					
	Allergies					
	T°, P, R, BP			Post-op obs ½hrly-2hrs, 1hrly-2hrs, 2hrly-4hrs,then 4hrly	4/24	Daily
	Wound					
	Deep Breathing/Leg X's				Cease	
	IV site				Cease	
Treatments	Dressing			Intact post-op	Dry - BD+prn	Dry - BD+prn
	Drain			Continuous	Continuous	Taped
Nutrition & Hydration	Oral	As desired	Fasting	Free Fluids	As tolerated	As desired
	IV			Continuous	Cease	
Elimination	Bladder	Assess	Check	Confirm	Check	Check
	Bowels			post-op void	post-op BO	
Hygiene		Self care	Self care	Full assist	Part. assist	Self care
			Pre-op shower			
Activity & Rest		As desired	Ambulant	Assist	As desired	As desired
			pre-op			
Occupational Therapy				O.T.visit 15mins	O.T.visit 45mins	
Teaching and Discharge Preparation		Pre-op Information & Education, including Discharge Plan, Deep breathing & leg x's	Continue/ Reinforce Education	Continue/ Reinforce Education Educate re: Home meds	Write scripts, GP letter & Disch Summary Arrange OPD appt. Organise Transport	GP letter with patient Discharge 1100hrs
Other (eg Allied Health)		Notify Breast Support Group				

An initial is required by any Health personnel who have responsibility for direct patient care.

The practitioner can be identified from the Specimen Initial Register on the front cover.

	Pre-admit			Admit											
Date:	/ /			/ /			/ /			/ /			/ /		
Stage:															
	AM	PM	N	AM	PM	N	AM	PM	N	AM	PM	N	AM	PM	N
Medical															
Nursing															
Occupational Therapy															
Other															
Medical															
Nursing															
Occupational Therapy															
Other															

OBSERVATIONS

Suitable for Early Discharge Yes/No
Explanation of pre-procedure Care Yes/No
Explanation of post-procedure Care Yes/No

	Date	Time	Temp.	HR	Resp.	BP	Wound	IV Site	Comments (Pain, Conscious State)	Initial
Baseline Obs PAC										
ATW										
RTW										

Proceed to 4/24 Observation sheets when this grid is filled

KEY TO CHART: Temperature: • Black Pulse: • Red Apex Rate: x Black Blood Pressure: Supine ↕ Black Erect ↕ Red

Date:					
Time:					

Temperature (Celcius), Pulse (per minute), Blood Pressure (mmHg)

240
230
220
210
200 40°
190
180
170
160
150 39°
140
130
120
110
100 38°
90
80
70
60
50 37°
40
30
20
10
0 36°

Respirations:
Bowels:
Weight
Urinalysis

CLINICAL PATHWAYS

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A Clinical Pathway is a calendar of events which records what will happen to you whilst you are in Hospital. All your tests, Medical treatment and Nursing Care are noted on the inside of the document. This document is a guide, not only for the professional people who will be caring for you, but also for you and your family.

If you have any questions regarding this Clinical Pathway, your care or the treatment you will be receiving while you are a patient, do not hesitate to ask your Doctor or Nurse.

DISCHARGE / TRANSFER DETAILS

Date: _____ **Time:** _____ **Signed:** _____
(Printed Name)

Discharge/Transferred to: _____
eg Home, other Ward, if so which one

CODING INFORMATION

Clinical Pathway = Breast Surgery
MDC eg = 9 DRGs eg = 483-498

All significant operations and procedures performed during the admission are coded. (Please indicate with a Tick)

FINAL DIAGNOSIS

COMPLICATIONS

PROCEDURES DURING ADMISSION

CONDITIONS EXTENDING LENGTH OF STAY

Infection
- Urinary
- Chest
- Phlebitis
- Septicaemia

Renal Failure
- Acute
- Chronic

- Pulmonary Embolism
- Asthma
- Venous Thrombosis
- Stroke
- TIA

- Diabetes
- Anaemia

Other:
- _____
- _____

Length of Stay

_____ Days

CLINICAL PATHWAY:
THYROIDECTOMY
Ward:

ATTACH PATIENT ADDRESSOGRAPH LABEL

Operation:

Thyroidectomy

Left ☐
Right ☐
Total ☐
Partial ☐

Date: _____

Consultant: _____

Risk Factors/Comorbidities

(A Comorbidity is a condition which increases a patient's length of stay by at least one day.)

Tick as applicable; add or delete as required

PRE-OP Major	PRE-OP Minor	POST-OP Major	POST-OP Minor
☐ Obesity	☐ Smoking <3/12 pre-op	☐ Pain	☐ Wound Infection
☐ Diabetes			

PATHWAY TRACK

Ideal Track = ✱→

Stage:

V
- **Discharge Stage**
- Self caring
- Assessment re: PAC follow-up
- GP letter with patient

IV
- **Post-Operative Stage - Non-Acute**
- Ambulating gently
- Tolerating Diet
- Dressing removed
- Drains removed
- Prescriptions, GP letter and Discharge summary written
- OPD appt arranged
- Transport home organised

III
- **Post-Operative Stage - Acute**
- Haemodynamically stable

II
- **Admission Stage** +
- Baseline obs attended
- Continue/Reinforce Education

Pre-operative Stage
- Fasted 8 hrs
- Fit for proposed procedure

I
- **Pre-Admission Stage**
- Lugol's iodine check
- Consent Form signed
- Medical and Nursing assesssment OK
- Education and Discharge plan commenced
- ENT consult organised

Day of Admission Episode:	PAC	ATW	2	3	4	5	6
Date:							
Post-op Day:							

Details of Admission to Ward

Date: _____ **Time:** _____

SPECIMEN INITIAL REGISTER

Please print name clearly. All staff who have responsibility for direct patient care, please complete this Register for identification purposes.

Initial	Printed Name	Desig.	Initial	Printed Name	Desig.	Initial	Printed Name	Desig.

In use
2/10/95
Draft 4 - 9/4/96
NSL

CLINICAL PATHWAY FOR THYROIDECTOMY

Thyroidectomy

Stage:		I Pre-admit	II Admit and Pre-op.	III Post-op. Acute	IV Post-op. Non-Acute	V Discharge
Consults and Assessments	Medical Consult	Medical Review	Medical Update	Review-Surgeon/	Review-Surgeon/	
		Sign Consent		Registrar/Resident	Registrar/Resident	
		Send ENT				
		referral				
	Anaesthetist		Anaesthetic review			
	Nursing	Assessment				
Investigations	Biochemistry	U&E, TFT				
		Calcium	Calcium	Calcium	Calcium	Calcium
		Lugol's iodine regime	→	→	→	→
	Haematology	FBP, X-match,				
		Group & hold				
	Radiology	CXR				
	Other	ECG if >45yrs				
Medications	Pre-medication		Ordered &			
	Analgesia		given	PRN	PRN	
	Other	Chart Meds	Continue usual medications		→	→
Observations	Identity Band		Check and apply			
	Weight					
	Early Discharge Suitability	Check at	Check			
	Consent	pre-admission	on			
	Allergies	assessment	admission	Post-op obs		
	T°, P, R, BP			½hrly-2hrs,		
	Wound			1hrly-2hrs,	4/24	Daily
	Deep Breathing/Leg X's			2hrly-4hrs,	Cease	
	IV site			then 4hrly	Cease	
Treatments	Dressing			Intact post-op	Remove - refer Ca\bloods regime	
	Drain			Continuous	Remove	
Nutrition & Hydration	Oral	As desired	Fasting	Free Fluids	Low fat	As tolerated
	IV			Continuous	Cease	
Elimination	Bladder	Assess	Check	Confirm	Check	Check
	Bowels			post-op void	post-op BO	
Hygiene		Self care	Self care	Full assist	Part. assist	Self care
			Pre-op shower			
Activity & Rest		As desired	Ambulant	Assist	Gentle	As desired
			pre-op		ambulation	
Teaching and Discharge Preparation		Pre-op Info.		Continue/	Write scripts,	GP letter with
		& Education,	Continue/	Reinforce	GP letter &	patient
		including	Reinforce	Education	Disch Summary	Discharge 1100hrs
		Discharge Plan,	Education	Educate re:	Arrange OPD appt.	Assess re:
		Deep breathing & leg x's		Home meds &	Organise Transport	PAC follow-up

An initial is required by any Health personnel who have responsibility for direct patient care.
The practitioner can be identified from the Specimen Initial Register on the front cover.

	Pre-admit			Admit											
Date:	/ /			/ /			/ /			/ /			/ /		
Stage:															
	AM	PM	N	AM	PM	N	AM	PM	N	AM	PM	N	AM	PM	N
Medical															
Nursing															
Other															
Other															
Medical															
Nursing															
Other															
Other															

OBSERVATIONS

Suitable for Early Discharge Yes/No
Explanation of pre-procedure Care Yes/No
Explanation of post-procedure Care Yes/No

Date	Time	Temp.	HR	Resp.	BP	Wound	IV Site	Comments (Pain, Conscious State)	Initial

Proceed to 4/24 Observation sheets when this grid is filled

KEY TO CHART: Temperature: • Black Pulse: • Red Apex Rate: x Black Blood Pressure: Supine ↕ Black Erect ↕ Red

Date:					
Time:					

Temperature (Celcius), Pulse (per minute), Blood Pressure (mmHg)

240
230
220
210
200 40°
190
180
170
160
150 39°
140
130
120
110
100 38°
90
80
70
60
50 37°
40
30
20
10
0 36°

Respirations:					
Bowels:					
Weight:					
Urinalysis:					

CLINICAL PATHWAYS

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If you have any questions regarding this Clinical Pathway, your care or the treatment you will be receiving while you are a patient, do not hesitate to ask your Doctor or Nurse.

DISCHARGE / TRANSFER DETAILS

Date: _____ **Time:** _____ **Signed:** _____
(Printed Name)

Discharge/Transferred to: _____
eg Home, other Ward, if so which one

CODING INFORMATION

Clinical Pathway = Thyroidectomy
MDC eg = 10 DRGs eg = 526

All significant operations and procedures performed during the admission are coded. (Please indicate with a Tick)

FINAL DIAGNOSIS

COMPLICATIONS

PROCEDURES DURING ADMISSION

CONDITIONS EXTENDING LENGTH OF STAY

Infection
- Urinary
- Chest
- Phlebitis
- Septicaemia

Renal Failure
- Acute
- Chronic

- Pulmonary Embolism
- Asthma
- Venous Thrombosis
- Stroke
- TIA

- Diabetes
- Anaemia

Other:
- _____
- _____

Length of Stay
_____ Days

APPENDIX D
DATA COLLECTION TOOL

EARLY DISCHARGE
RESEARCH PROJECT
Patient Form

Telephone No. _____

UMRN:

Surname:

Patient Addressograph Label

Forename:

DOB:

Sex:

Clinic Visits

Date of Visit	Visit Reason	Referral Source Code	Principal Diagnosis	Principal Procedure Code	Diag. Proc.	Staff Seen	Drugs Ordered	Post Visit Ref	Visit Dur'n

Admissions

Date of Adm	Admission Code	Op Date	Discharge Date	Discharge DRG

Care Visits

Date of Visit	Treatment Code	Equipment Loan	Visit Duration	Admission Duration	Travel Duration	Date of Next Visit

Comments: _____

APPENDIX E
PATIENT SATISFACTION SURVEY

Sir Charles Gairdner Hospital

PAC

PRE-ADMISSION CLINIC

Surgery

Patient Satisfaction

Questionnaire

1995

4 **When discussing your condition or treatment at the Pre - Admission Clinic, did the hospital staff speak to you in a way you could understand?**

Always ☐

Mostly ☐

Sometimes ☐

Never ☐

Comments: _____

_____

_____

5 **Do you feel you were given enough information about your treatment and hospitalisation BEFORE you were admitted?**

Yes ☐

No ☐

6 **If YES, who gave this information to you?**

Pre-Admission Clinic Doctor ☐

Pre-Admission Clinic Nurse ☐

Other ☐

Comments: _____

_____

_____

If NO, what would you like to have been told?

_____

_____

_____

_____

7 **Would you have preferred to have been admitted**

The day before surgery ☐

The day of surgery ☐

Unsure ☐

Comments: _____

_____

8 **At your clinic appointment did the staff explain what was about to be done?**

Always ☐

Mostly ☐

Sometimes ☐

Never ☐

Comments: _____

_____

13 **Did you visit your G.P. while the hospital nurses were visiting you?**

Yes ☐

No ☐

If Yes , how many times? (place number in box)

Comments: _____

_____

_____

14 **Did you feel safe having your treatment at home rather than in hospital?**

Yes ☐

No ☐

Comments: _____

_____

_____

15 **(a) Did you think the home nursing was a good thing?**

Yes ☐

No ☐

(b) Would you recommend it to your friends?

Yes ☐

No ☐

16 **To ensure that all people are represented from the community, could you please tick (✓) the appropriate box. Which age group are you in?**

10-19 ☐

20-29 ☐

30-39 ☐

40-49 ☐

50-59 ☐

60-69 ☐

70-79 ☐

80 + ☐

17 **Are you :**

Male ☐

Female ☐

Dear patient

We are continually trying to improve the quality of service we provide. To do this we need to know what you liked and disliked about the Pre - Admission Clinic and the Early Discharge program.

All responses to this questionnaire are anonymous and confidential. Please help by answering the following questions and returning the questionnaire in the envelope enclosed.

Thank you for your time and co-operation.

Lorna Rogers
Co-ordinator
Pre - Admission & Early Discharge Program.

Please mark your answer in the box and print your comments

1 **Before admission, who informed you of the Pre - Admission Clinic (PAC)?**

The Pre - Admission Clinic ☐
Your Doctor ☐
The Admissions Dept ☐
Other ☐

2 **(a) Was your admission to this hospital problem free?**

Yes ☐
No ☐

(b) *If NO please explain the problem.*

Comments: _____

_____

3 **At the Pre - Admission Clinic did the staff introduce themselves?**

All Staff ☐
Doctors ☐
Nurses ☐
Secretary ☐

Comments: _____

_____

9 **At the Pre-Admission Clinic, were you kept waiting to be seen?**

If so, by whom and for how long? _____

_____

_____

_____

_____

_____

Comments: _____

_____

_____

10 **During examination or treatment, did you feel that your personal dignity was maintained?**

Always ☐
Mostly ☐
Sometimes ☐
Never ☐

Comments: _____

_____

If you were discharged early and had SCGH nursing staff visit you, **please continue,** if not, please go straight to question 16.

11 **If you suffered pain after discharge, did you feel it was adequately controlled?**

Almost ☐
Mostly ☐
Sometimes ☐
Never ☐
Not applicable (e.g. no pain) ☐

Comments: _____

_____

_____

12 **Do you feel you were able to recover from your operation quicker by being in your own home earlier?**

Yes ☐
No ☐
Don't know ☐

Comments: _____

_____

_____

18 **Please indicate your post code in the following box:** ☐

If there are any other matters about which you would like to comment, we would be grateful if you would record them here.

Comments: _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Thank you. We hope your stay at SCGH was as comfortable as possible.

PAC

PRE-ADMISSION CLINIC

Sir Charles Gairdner Hospital

CUSTOMER
FOCUS
WESTERN AUSTRALIA

APPENDIX F
FUNDING BODY DATA COLLECTION REQUIREMENTS

DATA COLLECTION REQUIREMENTS

Demographic Data

Unique medical record number

Gender

Date of birth

Residential post code

Patient classification

Outpatient Clinic Data

Date of visits/service

Referral source

Diagnosis

Initial visit

Reason for visit

Post visit referrals

Duration of visits

Care provider(s)

Principal procedures

Diagnostic investigations undertaken

Pharmaceuticals dispensed

Domiciliary Care Data

Date of visit

Visiting care provider(s)

Treatment

Equipment lent to patient

Duration of visit

Indirect patient time

Travelling time

Pharmacy Data

Date of service

Date of supply

Drug name

Drug form and strength

Drug dosage

Drug quantity

Prescription from other source

Inpatient Treatment

Admission date

Discharge date

Discharge DRG

APPENDIX G
PATIENT SATISFACTION LETTER OF EXPLANATION

Dear patient,

Sir Charles Gairdner Hospital is always trying to improve its services to the public of Western Australia. Recently you attended a Pre-Admission Clinic prior to surgery at the Hospital. This Pre Admission Clinic is part of a Pre admission and Early Discharge Program designed as a pilot study to find ways of streamlining the hospitalisation process.

Although I am the Nurse Co-ordinator of this clinic, I am also a student at Edith Cowan University studying for a Masters Degree in Nursing. As part of my studies I would like to determine your satisfaction with the services you received through this clinic. In this way both the Hospital and future patients can benefit from your comments and suggestions.

It would be of great assistance to our clinic team (Kathleen, Pauline and myself) if you would take approximately ten minutes to answer this survey and return it to us in the stamped addressed envelope enclosed.

We know that you may have already received other similar surveys from the Hospital in regard to the treatment you received whilst you were a patient in the Hospital but this survey pertains particularly to us, so we appreciate the extra time and effort undertaken by you.

Please be assured the survey is anonymous and we cannot trace you in any way as long as you do not write your name or any other identifying information on it.

If you have any queries or would like information regarding to the results of this survey please feel free to contact me on 3463333 and ask the operator to telepage me, or, you may contact my supervisor Patricia Percival, at Edith Cowan University on 3838333.

Thank you

Yours sincerely

Lorna Rogers
PROGRAM CO-ORDINATOR

Enc. 1

APPENDIX H
TEST GUIDELINES DEVELOPED BY ANAESTHETIC DEPARTMENT

GUIDELINES FOR ROUTINE PREOPERATIVE INVESTIGATIONS

	FBC M	FBC F	Coags	U & E	BSL	LFT	ECG	CxR	X-match
Major Surgical Procedure									
<40yo	X	X		± ?	± ?		+Thoracic	+	X
40-59yo	X	X		X	X		X	±	X
≥60yo	X	X		X	X		X	X*	X
Minor Surgical Procedure									
<40yo		±							
40-59yo		X					±		
≥60yo	X	X		±	±		X	±	
Cardiovascular disease	X	X		X	✕ ?		X	X*	
Digoxin use				X			X		
Pulmonary disease	X	X					X	X*	
Smoking ≥ 20 pk yr	X	X					X	X*	
Hepatic disease	X	X	X	X	X	X			
Exposure to hepatitis						X ±	Hepatest		
Renal disease	X	X		X					
Diuretic use				X					
Diabetes				X	X				
Steroid use				X	X				
Bleeding disorder	X	X	X +	Haematology Consult					±
Anticoagulant use	X	X	X						±
Malignancy	X	X	±*					X*	

± implies test may be indicated: Obviously not all diseases can be covered by this table. Please use your own judgement for investigating patients with uncommon disesase states using the patient history and examination as a guide. **If in doubt contact anaesthetist involved.**

Always indicate tests ordered in patient notes. **Please try to ensure results are available for review by the anaesthetist** and advise well in advance of major abnormalities or serious disease states (especially cardiac and respiratory conditions). It is not reasonable to expect the anaesthetist to sort out an obvious problem after you have gone home.

Notes on Specific Tests and Abnormal Results

X-match: Please be guided by the **Maximum Blood Order Schedule** (anaesthetist can always advise blood bank later of higher requirements)

FBC: Discuss with the anaesthetist if there is a need for preoperative transfusion of blood or platelets.

Coags: Should only be ordered on the basis of a specific history of severe hepatic disease, abnormal bleeding and anticoagulant use (this may include SC heparin if a regional technique is planned)

±* some leukemias and lymphomas may be associated with abnormalities of clotting/the coagulation system **If abnormal please advise anaesthetist** as regional techniques are relatively contraindicated.

U&E: Minor abnormalities rarely influence anaesthetic technique but the anaesthetist needs to be informed of major abnormalities of Na^+ and K^+ and renal function.

BSL: Please be guided by urinalysis as well as history and avoid random samples in known diabetics A fasting BSL is more appropriate. Advise anaesthetist early of diabetic patients with poor control and try to book insulin dependent patients first on a morning list if possible.

ECG: Please be guided by presence of cardiovascular risk factors obtained on history. The ECG is a useful baseline test. In patients with a known history of cardiovascular disease there is a high incidence of new abnormalities on repeating the ECG even in the absence of recent symptoms.

CxR: Respiratory function as assessed by history, examination, FEV 1,FVC and possibly ABGs is much more likely to influence the choice and risks of anaesthesia.

X*: Royal College of Radiologists (U.K.) recommendations for pre-operative CxR include:

- those with acute respiratory symptoms
- those with possible pulmonary metastases or those coming from an area where TB is endemic
- those with suspected or established cardio-respiratory disease who have not had a CxR in the previous 12 months (may be longer if disease stable and mild)

APPENDIX I
ENTIRE DRG LIST OF PROGRAM PATIENTS

DRG	DESCRIPTION
1	MOUTH, LARYNX OR PHARYNX DISORDERW/TRACHY AGE > 15
3	TRACHY OTHER THAN FOR MOUTH, LARYNX OR PHARYNX DISORDER
27	CARPEL TUNNEL RELEASE
28	PERIPH & CRANIAL NERVE & OTHER NERVE SYST PROC
111	SIALOADENECTOMY
112	SALIVARY GLAND PROCS EXCEPT SIALOADENECTOMY
114	MOUTH PROCEDURES
162	MAJOR CHEST PROCS W/O CC
170	RESPIRATORY NEOPLASMS
229	MAJOR RECONSTRUCT VASC PROC W/O PUMP W NON MAJOR CC
232	VASC PROCS EXCEPT MAJOR RECONST W/O PUMP W/O CC
239	VEIN LIGATION AND STRIPPING
240	OTHER CIRCUL SYSTEM O.R. PROCS
300	RECTAL RESECTION W CC
301	RECTAL RESECTION W/O CC
302	MAJOR SMALL & LARGE BOWEL PROC W CC
303	MAJOR SMALL & LARGE BOWEL PROC W/O CC
304	PERITONEAL ADHESIOLYSIS W CC
305	PERITONEAL ADHESIOLYSIS W/O CC
306	MINOR SMALL & LARGE BOWEL PROC W CC
307	MINOR SMALL & LARGE BOWEL PROC W/O CC
308	STOMACH, OESOPH &DUOD PROCS AGE >9 W MAJOR CC
309	STOMACH, OESOPH &DUOD PROCS AGE >9 W NON MAJOR CC
312	ANAL AND STOMAL PROCS
313	HERNIA PROC EXCEPT INGUINAL & FEMORAL AGE > 9
314	INGUINAL AND FEMORAL HERNIA PROCS AGE >9
317	APPENDICECTOMY W/O COMPLICATED PRINC DIAG
318	OTHER DIGESTIVE SYSTEM O.R. PROCS W CC
319	OTHER DIGEST SYSTEM O.R. PROCS W/O CC
320	DIGESTIVE MALIGNANCY
326	INFLAMMATORY BOWEL DISEASE W CC
328	GI OBSTRUCTION
329	OESOPHAGITIS, GASTRO ENT & MISC DIG DISORD AGE > 9 W CC
330	OESOPH, GASTROENT & MISC DIGEST DISCORD AGE > 9 W/O CC
332	OTHER DIGEST SYSTEM DIAGS AGE > 9 W CC
333	OTHER DIGESTIVE SYST DIAGS AGE > 9 W/O CC
360	PANCREAS, LIVER & SHUNT PROCS W CC
362	BIL TRACT PROCS EXC ONLY CHOLE W OR W/O CDE W MAJOR CC
363	BIL TRACT PROC EXC ONLY CHOLE W OR WO CDE W NON MAJORCC
364	BILIARY TRACT PROCS EXC ONLY CHOLE W OR W/O CDE W/O CC
366	CHOLECYSTECTOMY W CDE W/O CC
367	CHOLECYSTECTOMY W/O CDE

DRG	DESCRIPTION
368	HEPATO BILIARY DIAG PROC FOR NON MALIGNANCY
375	DISORDERS OF PANCREAS EXC MALIGNANCY WO CC
379	DISORDERS OF BILIARY TRACT W/O CC
408	WND DEBRID & SKN GRAFT,EXC HAND MS & CONN TISSUE DIS W CC
417	SOFT TISSUE PROCS
419	HAND OR WRIST PROC, EXCEPT MAJOR JOINT PROC
424	OTHER MUSCULO SKELETAL SYST & CONN TISSUE O.R PROC W/O CC
429	PATHOLOGICAL FRACTURES & MUSC SKEL & CONN TISSUE MALIG
481	SKIN GRAFT & /OR DEBR'D EXC FOR SKIN ULCER CELLULITIS
482	PERIANAL & PILONIDAL PROCS
484	OTHER SKIN, SUBCUT TISSUE & BREAST PROCS
488	NON MALIG BREAST DISORDERS
489	CELLULITIS AGE > 9 W CC
490	CELLULITIS AGE > 9 W/O CC
493	TRAUMA TO SKIN, SUBCUT TISS & BREAST AGE > 9 W/O CC
495	MAJOR PROCS FOR MALIG BREAST CONDITIONS
496	MINOR PROCS FOR MALIG BREAST CONDITIONS
497	MAJOR PROCS FOR NON MALIG BREAST CONDITIONS
498	MINOR PROCS FOR NON MALIG BREAST CONDITIONS
499	MINOR SKIN DISORDERS
521	ADRENAL PROCEDURES
524	OR PROCEDURES FOR OBESITY
525	PARATHYROID PROCS
526	THYROID PROCS
535	ENDOCRINE DISORDERS
554	PROSTATECTOMY W CC
607	TESTES PROC NON MALIG AGE > 9 W CC
610	CIRCUMCISION
621	TESTES PROCS, NON MALIG AGE > 9 W/O CC
750	SPLENECTOMY
752	OTHER O.R. PROCS OF BLOOD & BLOOD FORMING ORGANS
772	L'PHOMA & NON ACUTE LEUK W OTHER OR PROC AGE > 9 W/O CC
776	MYELOPROLIF DISORDER OR POOR DIFF NEO WMAJ PROC AGE>9W/O CC
777	MYELOPROLIF DISORD OR POORLY DIFF NEO W MAJ OR PROC WOCC
785	LYMPHOMA & LEUKEMIA W MAJ O.R. PROC W/O CC
810	POST OPERATIVE & POST TRAUMATIC INFECTIONS
881	OTHER PROCS FOR INJURIES W/O CC
891	COMPLICATIONS OF TREATMENT
930	OR PROC W DIAGS OF OTHER CONTACT W HEALTH SERVICES
933	AFTERCARE WITHOUT SDX OF HISTORY OF MALIGNANCY
950	EXTENSIVE OR PROC UNRELATED TO PRINCIPAL DIAGS
954	NON EXTENSIVE O.R. PROC UNRELATED TO PRINC DIAG