

Stoma Care

Edited by Jennie Burch

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Stoma Care

Dedication

I would like to dedicate this to my friends and family all of whom I love very much. It has been hard work and thank you for all your support.

Stoma Care

Edited by Jennie Burch

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Preface

Stoma care is a field of great interest, although not a glamorous subject, for nurses and allied health care professionals. This book aims to give the reader detailed information on stoma care and related topics to help develop the care of ostomates (people with stomas) and to improve their quality of life.

Working as a specialist nurse within a specialist hospital has given me knowledge and experience that I would like to share with others. I have also worked with many exceptional people; some have contributed to this book either directly or indirectly.

This book is written for readers with an interest in stoma care and related issues. It is also written so that it may be dipped into for information or read fully. The aim is to discuss comprehensively the subject which has been written about in many books and journals, pulling together many of the numerous issues related to stoma care.

Bodily function is not a glamorous subject and when something goes wrong with these systems, patients need knowledge-based help from their health care professionals. The objective of this book is to provide a comprehensive resource to assist in this process. This book will be a valuable aid for all health care professionals involved in the care of patients with gastrointestinal problems.

Jennie Burch

Introduction

This book is written to assist health care professionals when caring for ostomates; before, immediately after stoma forming surgery and in the long term. Many specialist nurses, doctors and dietitians wrote the book. The book is divided into chapters to make reading easier and to enable the reader to gain quick access to the topic of interest.

The contents of each chapter are subdivided into related information. Practical information is provided for use in the clinical area. This advice aims to assist the health care professional in caring for and giving guidance to the ostomate.

Many related subjects such as bowel diseases and continence will be discussed. This will assist the reader in understanding some of the complications and processes that the person with a stoma has encountered prior to their surgery. However, other stoma types such as tracheostomies will not be discussed in this book.

Illustrations and pictures are included to assist the reader. Tables and bullet points are used to simplify issues, making reading more simple.

Chapter 1

Stomas: The Past, Present and Future

Jennie Burch

Introduction

A stoma is a Greek word meaning mouth or opening (McCahon 1999) and they have been written about for over 2000 years. This chapter provides a history of stoma care through to the present day and offers thoughts for the future. The types of stomas that are generally formed to pass faeces or urine from the body under involuntary control by the patient are discussed. The other types of stoma such as the tracheostomy and gastrostomy will not be explored.

The history of stomas

The history of stoma care gives perspective and is examined from the 1700s to date. In Aristotle's time (384–322 BC) surgery for intestinal obstruction was reported; the results, however, are not discussed (MacKeigan 1997). In Celsus' time (55 BC–AD 7) there were poor survival outcomes from an abdominal injury to the colon, but a repair was worth attempting, as no intervention would result in certain death (Lewis 1999). However, during these times it was not thought worth attempting surgery for ileal damage.

In the 1700s there were several successful surgically exteriorised bowels. Stomas were formed as a consequence of faecal fistulae resulting from war, trauma or a strangulated hernia. The earliest recorded success in stoma care was a battle wound. George Deppe was injured in 1706. His abdominal wounds discharged faeces and he lived for 14 years with a prolapsed colostomy (Cromar 1968). During the eighteenth century to collect the faeces a tin or some cloth was used over the stoma and although this was problematic at least the person lived. Mr William Cheselden in 1756 operated on Margaret White when she was 73 years old. She had a prolapsed umbilical hernia that became gangrenous. After the surgeon formed a transverse colostomy, she lived for many years (Black 2000). An obstructing carcinoma led Pillore in 1776 to perform a cecostomy but the patient

died 28 days later when the carcinoma perforated (MacKeigan 1997). Infant surgery was also successfully described. In 1798 a French surgeon, Duret, created a colostomy on a four-day-old baby with an anorectal defect. The patient lived for over 40 years (Webster 1985). In 1795 following a farming injury a French surgeon Daguesceau created a colostomy that the farmer lived with using a small, leather drawstring bag to collect the faeces (Cromar 1968).

During the 1800s mortality was high due to peritonitis as a result of faecal contamination (Black 2000). Mr Simon described urinary diversion surgery after operating on a child with a bladder abnormality in 1851. A channel was created between the ureters and the rectum. Despite the surgical technique being successful the child died several months later. Martini in 1879 performed a procedure similar to a Hartmann's (MacKeigan 1997). In 1887 William Allingham described formation of a loop colostomy with a glass rod (Lewis 1999). Using a rod with a loop stoma is often still undertaken, although the rod is now made from plastic.

Moving on to the twentieth century bowel resections and closures were undertaken successfully, but mortality remained high. Von Mikulicz in 1903 formed a double-barrel colostomy and this was closed using a crushing enterotome (Black 2000). In 1911 Coffey diverted urine by implanting the ureters into the sigmoid colon (Coffey 1911). The output was wet faeces, which was malodorous and caused peri-anal skin excoriation and infection. Mortality was very high at approximately 50%, predominantly due to infection. Hartmann in 1923 is attributed with the procedure that currently bears his name (Black 2000). Hartmann described an elective resection of a recto-sigmoid cancer and formation of an end colostomy. Miller in Canada performed in 1949 the first panproctocolectomy with formation of a permanent ileostomy, with 24 procedures performed without mortality (Miller *et al.* 1949). Bricker in 1950 formed the ileal conduit. Bryan Brooke from the UK addressed the difficulty with ileostomy management in 1952 by devising the spouted ileostomy (Brooke 1952). A spouted ileostomy reduces the risk of peri-stomal skin excoriation and was later revised to the '554 ileostomy' (Hall *et al.* 1995). In the 1950s the abdominoperineal resection of the rectum (AP, APR or APER) was introduced, resulting in the formation of a permanent colostomy (Black 2000).

A number of pouches were devised in the late twentieth century. In an attempt to improve the patients' quality of life, in 1969 a Swedish surgeon named Kock created an internal pouch to act as a faecal reservoir (Kock 1969). The Kock pouch was made continent by a valve and emptied regularly using a catheter passed through the abdominal stoma. This is rarely performed now since Parks further improved this in 1978, when he formed an ileoanal pouch that was attached to the anus and thus retained faecal continence (Parks *et al.* 1980). In Germany in the 1970s a magnetic colostomy system was developed to provide a continent stoma (Taylor-Mahood 1982). Although this was successful it is no longer used in the UK. Mitrofanoff in the 1980s devised the urinary pouch that required emptying with a catheter via a small opening in the abdomen. The Mitrofanoff pouch has proved effective after a 15-year follow up (Liard *et al.* 2001); for more information see Chapter 11 on urological pouches.

More recent changes include the increasing use of laparoscopic surgery. There has also been a reduction in the length of hospital stays, which reduces the time available for stoma training (MacKeigan 1997).

Stomas

A stoma is a surgically formed opening from the inside of an organ to the outside (Hyland 2002). In general the beginning of the name explains where the opening originates. The bowel that is attached to the abdomen is referred to as a stoma or an ostomy. There are three main types of stoma that are formed using the bowel: the colostomy, ileostomy and urostomy. There are other variations such as the rare jejunostomy.

There are a reported 100 000 ostomates (people with stomas) in the UK (Williams & Ebanks 2003). This figure remains largely unchanged over recent times (Lee 2001). The number of newly formed stomas in the UK appears to have remained fairly constant for the last ten years. In 2006 there were 21 351 stomas formed, in 2001 figures were 19 911 and in 1996 they stood at 19 806 (IMS 2007). To assist those with less experience of stomas the various terms for stomas are explained more fully.

End stomas

An end stoma is formed when one end of the bowel is brought through the surface of the abdomen. The edges of the bowel are turned back and stitched to the abdominal skin with dissolvable sutures. The other end of the bowel might be removed, as in an abdominoperineal resection of the rectum, or over-sewn such as in a Hartmann's procedure. An end stoma can be temporary or permanent but generally is permanent.

Loop stomas

Loop stomas are formed when the distal bowel is defunctioned, for example to protect an anastomosis. A loop of bowel is brought through the surface of the abdomen. A rod or bridge may be used under the bowel to reduce the risk of retraction, but this is not always required. The bowel loop is partially opened and the bowel edges are folded back and sutured to the skin with dissolvable sutures (Davenport & Sica 2003) resulting in two openings. Through the proximal (afferent) loop will pass faeces. Through the distal (efferent) loop will pass either nothing or a little mucus (Hyland 2002). As two loops of bowel are brought to the skin, loop stomas tend to be larger than end stomas. Loop stomas are generally temporary stomas, formed to make easy access to the distal bowel limb for rejoining at a later stage.

Split/divided stomas (Devine operation)

Split stomas are formed when both ends of the bowel are brought to the skin surface, but at different incision sites (Williams & Ebanks 2003). This may be following a subtotal colectomy when the ileum is formed into an

ileostomy and the rectum into a colostomy (mucous fistula). A split stoma is usually temporary.

Double-barrelled stomas (Bloch-Paul-Miculicz)

A double-barrelled stoma may be used following resection of diseased bowel. The proximal stoma will pass faeces and the distal bowel will be non-functioning but both ends are exteriorised. This can appear like a loop stoma, but no rod is required. Closure of the temporary stoma will require further surgery.

Defunctioning stoma

A defunctioning stoma is intended only to be present for about three to six months and is used to defunction an anastomosis, for example. This can be as a loop stoma or an end stoma with closure of the distal limb. A loop stoma will not fully defunction the distal bowel, as it is possible for faeces to pass from the proximal to the distal bowel and not into the appliance. However a loop stoma does well enough in most cases (Nicholls 1996) to prevent complications.

Trephine stoma

A trephine stoma is created laparoscopically through an incision on the abdomen prior to the abdomen being opened. This means that the stoma is formed on secure muscles (Nicholls 1996). Often a midline abdominal incision is not required for a trephine colostomy, such as one formed for faecal incontinence.

Temporary stomas

In 2006 the number of temporary stomas formed was 10301 which was a rise from 9067 in 2001 and an increase from 7925 in 1996 (IMS 2007). It should be noted that the number of temporary ileostomies has more than doubled in a ten-year period to 5749 in 2006 and the number of temporary transverse colostomies has more than halved to 760 in the same time period (IMS 2007). There are a variety of situations that may require the formation of a temporary stoma, in the emergency situation where there is sepsis, for example, and thus a risk to an anastomosis (Kirkwood 2005). A temporary stoma may be formed to protect an anastomosis until healing has occurred. Generally a temporary stoma is reversed or closed three or more months after the initial surgery in a smaller operation.

Permanent stomas

The number of permanent stomas has remained stable at about 11000 newly formed each year (IMS 2007). Permanent stomas are generally formed if anal sphincters will be compromised during surgery. This could be in situations where incontinence may follow resection of a low rectal tumour, for example. A permanent stoma is also formed when the distal

portion of the bowel or urinary tract is removed, for example in an abdominoperineal resection of the rectum.

Colostomy

In 2006 there were 6673 permanent colostomies formed and 4552 temporary colostomies (IMS 2007). A colostomy is a surgical procedure in which the colon is diverted to the abdomen to pass faeces from the body. This is currently the most common type of stoma. Colostomies may be temporary, after a trauma for example, or permanent for an anal cancer. A colostomy is usually situated in the left iliac fossa and is red, warm, moist and flush or minimally raised (Stephenson *et al.* 1995). The size and shape may vary, but an average is 30–35 mm in diameter.

A colostomy can be formed as an end or a loop stoma. It is important to note that when caring for an ostomate with a loop colostomy any medication or irrigation needs to be given via the correct route (Hyland 2002). A temporary end colostomy is formed when the colon is divided, in a Hartmann's procedure, for example.

The output from a colostomy is flatus and usually formed or soft faeces. The more distal the stoma, the more formed the faeces will be; this means that a transverse colostomy will have a more loose faecal output than a sigmoid colostomy, for example. A colostomy may be formed from the sigmoid colon, descending colon, transverse colon or the caecum (Hess 2003).

The appliance generally used by a colostomate is a closed bag. The appliance will need replacing when approximately a third to a half full. Colostomy appliances are therefore replaced once or twice daily, but this will vary depending on the colostomate's bowel function, which is generally every few days to three times daily. Most two-piece appliances can be used for up to seven days (Shollenberger *et al.* 2000), but not generally more than four days. Colostomy irrigation is also a method of management and the appliance used in this situation would be a stoma cap (see Chapter 17 on bowel irrigation).

Ileostomy

An ileostomy is the diversion of the ileum to the abdominal surface to pass faeces. Generally the terminal ileum is used to form an ileostomy. In 2006 there were 5749 temporary ileostomies and 2894 permanent ileostomies formed (IMS 2007). An ileostomy may also be temporary, permanent, an end or a loop stoma. The output from an ileostomy is loose faeces, often porridge-like in consistency. However, the faeces will vary throughout the day depending on what is consumed by the ileostomate. The average daily faecal output passed from an ileostomy is 600 to 800 ml (Black 2000), thus the appliance used is a drainable bag. An ileostomy appliance is generally emptied four to five times daily, when a third to half full (Shollenberger *et al.* 2000). The appliance is generally replaced on alternate days, but this can vary from daily to up to four days' wear.

An ileostomy is usually situated within the right iliac fossa and is warm, red and moist with a small spout. The spout is ideally 2.5 cm in length

(McCahon 1999) and the average diameter is smaller than a colostomy at about 30 mm.

Urostomy

A urostomy is the least common of the three main types of stoma. In 1996 there were 2218 new urostomies formed, reducing to 1962 in 2001 and further dropping in 2006 to 1483 (IMS 2007). A urostomy is formed to pass urine from the body via the abdomen. A small segment of bowel is used as a passage (conduit), often the ileum, giving the name ileal conduit. The bowel is isolated and one end is over sewn and the ureters are attached. Generally immediately after surgery there are stents in situ to prevent the anastomosis between the ureter and bowel from stenosing. Ileal conduits are an improvement on the ureterostomy, where the ureters were brought to the surface of the skin (Harvey 1997) often resulting in problems such as stenosis of the ureters. A urostomy is nearly always a permanent, end stoma. The appropriate appliance to use is a drainable bag with a tap or bung. As part of the bowel is used to form the urostomy the urine will also contain small amounts of mucus. The appliance is usually emptied four to six times daily, as the appliances have a maximum capacity of about 400 ml (Fillingham 1997). This is about the same frequency as a bladder requires emptying. The appliance is generally replaced on alternate days, but may be more or less frequent. The volume passed will vary depending on the volumes consumed, but can be about 1.5 litres daily (Burch & Sica 2004).

A urostomy is usually situated in the right iliac fossa and is similar in appearance to an ileostomy. The urostomy is warm, red and moist with a 2.5 cm spout and is about 30 mm in diameter.

Mucous fistula

When a person has a mucous fistula formed they will have two stomas. One is formed to pass faeces and the other to release mucus from the body. A mucous fistula is fairly uncommon, but might be formed when there is a low rectal cancer or in the case of emergency surgery for ulcerative colitis. A mucous fistula allows the disconnected portion of the intestine to pass any mucus from the body that cannot pass out of the anus, for example past a tumour (Hyland 2002). Usually the amount of mucus is minimal and may be intermittent and jellylike, collected using a stoma cap or dressing. The mucus can be quite malodorous and patients should be advised of this fact. Ostomates who have had a subtotal colectomy with a mucous fistula formed from their retained rectal stump may pass liquid mucus. To contain the mucus a small drainable appliance may be appropriate.

Jejunostomy

A rarely formed stoma is the jejunostomy. A jejunostomy will be formed in situations such as a bowel infarct or following an extensive resection of small bowel. A jejunostomy is formed from the jejunum and will have a high faecal output, usually over one litre daily. Thus the frequency of

emptying the loose or liquid faeces is high (Erwin-Toth & Doughty 1992). Some ostomates will attach further drainage facilities to overcome this issue. Ideally the jejunostomy will look like an ileostomy, with a spout, but as the stoma is often formed in an emergency situation this is not always possible and stoma management may be difficult.

The appliance used for a jejunostomy can be an ileostomy appliance but there are also a limited number of specially designed appliances on the market. The high output appliances are slightly larger than the general ileostomy appliance and have a connector on the bottom that can be attached to a drainage bag. The appliance is generally changed on alternate days, but this may vary.

If there is under 100 cm of small bowel before the jejunostomy then parenteral nutrition will be required (see Chapter 16 on fistulae and intestinal failure). Any type of jejunostomy will generally require the ostomate to reduce oral hypotonic fluids and to take rehydration solution. Medications are also generally used to slow the gut and to reduce secretions, in addition, to try and reduce the faecal output (Nightingale 2003).

A feeding jejunostomy should not be confused with a faecal jejunostomy and is not discussed.

Stoma care nursing

The first mention of stoma care was in the 1930s when Plumley described how a patient worked out the care of his own ileostomy as there was no one to advise him (Black 2000). At this time the only help available was from other patients or to use one's own ingenuity (Elcoat 2003).

The issue of support for ostomates was first addressed in 1958 by an ileostomate Norma Gill (Broadwell & Jackson 1982). Ms Gill was not a health care professional but assisted Dr Turnbull in Cleveland, USA as an ostomy technician (Anderson 1982). Ms Gill helped to organise the United Ostomy Association and form the World Council of Enterostomal Therapists (Elcoat 2003). Dr Turnbull and Ms Gill started the first training programme for professionals in 1961, designed to assist ostomates to adjust to their stoma.

In 1969 a UK ward sister, Barbara Saunders at St Bartholomew's Hospital, London, set up a stoma clinic with her surgeon Ian Todd. Ms Saunders became the first stoma specialist nurse in the UK in 1971 (Black 2000).

In 1977 the Royal College of Nursing formed the Stoma Care Forum. Nurses with an interest in stoma care could, and still can, belong to this forum (Black 2000). This has now been expanded to include any nurse working in gastrointestinal nursing (Elcoat 2003). A year later the Department of Health and Social Services brought out 'The Provision of Stoma Care', a paper detailing to health authorities how to appoint a trained stoma specialist nurse. It was considered important to care for the small number of ostomates, as it was felt that this group faced significant problems coming to terms with their stoma.

Stoma care nursing is both acute and long-term, therefore patients are never discharged from the service. Patients can range from neonates to the elderly and the primary aim of the stoma specialist nurse is to promote

independent living if possible. The advent of specialist nurses to improve the care for ostomates (Comb 2003) has resulted in over 400 stoma specialist nurses in the UK (Wallace 2002).

The WCET (World Council of Enterostomal Therapy) is a worldwide stoma care forum to support stoma specialist nurses. Every few years the council meets in different countries to exchange stoma care experience and knowledge. There is also the ECET (European Council of Enterostomal Therapy) in Europe and the WCET UK with meetings across Europe and the UK respectively.

Roles of the stoma specialist nurse

There are various perceptions on the role and qualities of the specialist nurse, with many centring on good communication and respect for the patients with an extensive knowledge of conditions and treatments (Rush & Cook 2006). The role of a specialist nurse includes:

- educator
 - researcher
 - expert
 - clinician
 - consultant
 - resource
 - administrator.
- (Black 2000)

Benner (1984) suggested that when becoming a specialist the nurse went through various stages from novice, advanced beginner, competence, proficiency, to becoming an expert. Specialisation has led to increasing independence for the practising nurse and thus greater accountability, for quality care, cost effectiveness, patient satisfaction and patient education (Jackson & Broadwell 1982). There is a perceived risk that the specialist nurse will simply take over medical roles that have been delegated to them. However, the nursing elements are still prevalent and important (Castleline 2002).

Training

The first UK stoma care course for trained nurses was in 1972 at St Bartholomew's Hospital (Black 2000). Training became popular and in 1980 the stoma care course had an 18-month waiting list (Yeo 1995). Later more training schools established stoma care courses. Currently, stoma care nursing courses have been given academic awards at diploma, degree and masters level. These modules can be used as 'stand alone' modules or as part of a programme to obtain a qualification. There are courses designed to assist registered nurses working with ostomates and others to prepare registered nurses to function as an expert in stoma care. These courses disseminate knowledge and expertise in stoma care (Elcoat 2003).

Link nurses

Link nurses are nurses with an interest in a specific area of nursing, such as stoma care. The aim for the link nurse is to enhance practice and therefore improve patient care. The link nurse can be seen as a two-way communicator between the specialist nurse and the ward nurses (Perry-Woodford 2005). The disadvantages are the time needed by the specialist nurse and the ward nurses to disseminate the information. This can be assisted by a computer-based training tool developed to be interactive and to underpin basic principles and practices in stoma care (Williams *et al.* 2007).

Deskilling

The role of specialist nurses is seen as many different things, ranging from providing expert care to deskilling other nurses to providing continuity of care. Elcoat (2003) suggests that the specialist nurse role should complement rather than detract from the skills of other health care professionals involved in the patient's care. To prevent nurses from losing their stoma care skills and competencies it is suggested that a referral is made to the stoma specialist nurse for advice rather than to take over the care (Dimond 2006). Following a survey undertaken by a community stoma specialist nurse her recommendations were, among other suggestions, that good communication was necessary between specialist nurses and others involved in the care of ostomates. Education by specialist nurses should be provided to prevent deskilling other nurses (Skingley 2006). Thus link nurses are ideal to assist the specialist nurse in the prevention of deskilling ward or community-based nurses. It is also essential for student nurses to gain a comprehensive knowledge of stoma care (Finlay 1990).

Present day stoma care

Stoma care, along with nursing in general and the National Health Service (NHS), are rapidly altering. Money and its effective use are more important than ever before. However, patients' expectations are also increasing and standards need to be maintained and improved. There are many generic nursing issues that affect stoma care, but specific areas include sponsorship of stoma nurse posts and the regulation of this.

The *Essence of Care* document (Department of Health 2001) discussed benchmarking to help improve the quality of care given to patients. Over the years those working in stoma care have attempted to achieve this by setting guidelines within their work remit. *Principle* was developed and published in conjunction with the Royal College of Nursing (RCN) and was designed as a framework for nurses to meet the needs of ostomates (Garnett *et al.* 1987). Wallace (2002) provided a more up-to-date set of competencies and nursing role with a booklet entitled *Competencies in Nursing: Caring for People with Colorectal Problems*.

Support groups

The first ostomy support groups were set up in America. Currently in the UK, professionals and ostomates run both national and local support groups for people with stomas. The practical advice and help that these groups provide to the ostomates is invaluable. The ones mentioned below are some of the support groups and the list is not exhaustive.

National support groups for colostomates

The Colostomy Welfare Group was formed in 1966 (McCahon 1999). This later became the British Colostomy Association (BCA), which folded 31 December 2005, partially due to funding problems (Gould 2006). A new organisation named the Colostomy Association was launched in November 2005, the website is www.colostomyassociation.org.uk. The association aims to support people with, or about to have, a colostomy and their families and carers (Hulme & Brierley 2007).

National support groups for ileostomates

The ileostomy association of Great Britain and Ireland (*ia*) was formed in 1956 (McCahon 1999). This association changed its name and function slightly to incorporate small bowel pouches such as the ileoanal pouch. The name is currently the Ileostomy and Internal Pouch Support Group; the website is www.the-ia.org.uk. The association aims to support people who require surgery to remove their colon and have an ileostomy or ileoanal pouch formed.

National support groups for urostomates

The Urostomy Association aims to support people who are to undergo, or have undergone, surgery to divert urine. The association was formed in 1971 as the Urinary Conduit Association. In 1984 the name changed to the Urostomy Association (UA). The website is www.uagbi.org.

National support groups for pouch patients

The Red Lion Group is a UK charity for people who have, or who are considering having, a pouch operation. The website is www.redliongroup.org.

The future of stoma care

The government regularly updates and alters its policies related to health care provision. There have been, on various occasions, proposals to revise the way that the NHS supplies and delivers stoma appliances. In many cases provision of personal assistance to patients may be lost for ostomates under the proposals that took effect in Scotland in 2005. More analysis of

the situation is being undertaken before final decisions are made in the UK.

The NHS spends more than £630 million each year in England on products such as stoma appliances, incontinence pads and dressings. The reimbursement system for over 200 suppliers requires review. However, some people are concerned that company-sponsored nurses will only promote their own companies' products which compromises patient choice (Gould 2006). However, it can be argued that in the current climate sponsorship of nurse posts actually saves the Trusts' money (Black 2006). Additionally most specialist nurses consider that choice is important. In a survey of stoma specialist nurses, it was demonstrated that there were strong feelings from the nurses about the quality of products available to stoma patients. The research also showed that many of the newer products are far superior to the older products, and comparisons on a cost basis alone were short-sighted and jeopardise product availability and the current high standards of stoma care (Berry *et al.* 2007).

Patient empowerment is desirable if not essential (Christensen & Hewitt-Taylor 2006). Nurses are in the ideal position to facilitate patient empowerment. Appropriately informed autonomous patients can therefore be responsible for their own health decisions.

What is the future for nurses? Currently nurses are discovering it difficult to find new jobs, with potential budgets cuts and posts not being replaced (Foss 2006). Nurses need to remain flexible and adapt to change as they have for many years (Porrett 1996). There are, however, fears about the ability of nursing to continue to evolve in a situation where many hospital jobs including specialist nurse posts have been cut (Mallender 2006), downgraded or are under threat (Norton & Porrett 2006). The RCN magazine stated that the Health Service could not afford to lose specialist nursing posts (Thomas 2007) but many nursing jobs are still at risk.

To conclude, it is a huge change in an ostomate's life to have stoma forming surgery. However with appropriate support and advice the ostomate can enjoy a good quality of life.

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