

# The importance of a holistic approach to stoma care: A case review

### ABSTRACT

This case review discusses the importance of providing a holistic approach to the care of a patient with two stomas and an enterocutaneous fistula. In this case, the stomas and fistula significantly affected the patient; not just physically but emotionally and socially. The different challenges that arose in pouching a high-output ileostomy, enterocutaneous fistula and ileal conduit with Foley catheter in situ are explored. It also delves into the various options for discharging a patient with complex ostomy complications requiring different needs and resources. Finally, it aims to highlight the therapeutic comprehensive care the stomal therapy nurse provided to the patient and their family.

**Keywords** Holistic approach, complex care needs, ileostomy, ileal conduit, enterocutaneous fistula.

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### INTRODUCTION

In 2014, bladder cancer was the eleventh most diagnosed cancer in Australia<sup>1</sup>. There were 2094 males and 654 females with new cases of bladder cancer diagnosed<sup>1</sup>. Meanwhile, in the same year colorectal cancer was the third most commonly diagnosed cancer and there were 6886 females and 8368 males with new cases of colorectal cancer<sup>2</sup>. In the general population, it is still unknown whether there is an association between urologic cancer and colorectal cancer<sup>3</sup>. It is rare for patients to have synchronous carcinoma of the bladder and colorectum<sup>4</sup>. Urologic cancer patients with other primary malignancies may be on the rise due to increased exposure to numerous environmental causative agents, increased worldwide incidence of obesity and an ageing population<sup>4</sup>. This paper explores the case of a 63-year-old man diagnosed with bladder and bowel cancer and the complications he developed post-surgery.

Pre-operative counselling and stoma site marking are recommended to prepare patients for life with a stoma, to choose an optimal location, and to reduce potential surgical complications post-operatively and other future problems<sup>5</sup>. In the event of an emergency procedure, the patient's stoma site is often not able to be marked and education about living with a stoma is not provided. Marking a patient for a stoma in an emergency may not always be possible and subsequently a stoma that is poorly positioned is likely to reduce the quality of life of the patient<sup>6</sup>. Factors that may influence where the surgeon might position the stoma during emergency surgery are: sepsis; oedema; inflammation of the bowel; nature of any underlying disease; an unstable and deteriorating patient; and time constraints. In addition, with patients in a supine position it is difficult to determine skin folds, assess body mass index and creation of the stoma is often delegated to a junior member of the surgical team. Common long-term complications associated with emergency ostomy surgery are skin problems, stenosis, prolapse, parastomal hernias, side fistulae and increased length of hospital stay<sup>7,8</sup>.

In addition to any stomas and their location, other sequelae of emergency ostomy surgery that may contribute to the patient's ability to self-care and be discharged in a timely manner relate to a lack of pre-operative counselling, ability to see the stoma, management of the stoma and appliance and psychosocial issues<sup>7,9</sup>.

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Figure 1 Ileostomy, urostomy, mid-abdominal fistula



Figure 2 Base plate of ileostomy pouch trimmed to avoid overlapping with ileal conduit

## CASE REVIEW

### Patient overview and presenting complaint

Mr TA is a 63-year-old gentleman who presented to the facility with rectal bleeding and haematuria, on a prior background of both colorectal and bladder cancer. His medical history includes hypertension and diabetes mellitus type 2. He underwent an emergency anterior resection requiring formation of end colostomy and cystectomy with formation of an ileal conduit.

### Post-operative complications

#### Intra-abdominal sepsis

Post-operatively, Mr TA developed intra-abdominal sepsis, requiring three exploratory laparotomies for abdominal washouts. He subsequently developed ischaemia of his small and large bowel. The surgeon estimated less than 2 metres of small bowel remained and consequently an ileostomy was formed on the right side of the abdomen. The surgeon was not able to accurately measure the length of the small bowel due to the patient's condition at the time of the operation.

#### Ileostomy location

The ileostomy was fashioned approximately 2 centimetres in distance from the ileal conduit at 12 o'clock position. The location of the ileostomy had a huge impact on the care of the stomas, pouching processes, and patient's ability to self-care of his stomas.

#### Fistulae development

Mr TA developed a fistula from his ileal conduit that began leaking urine into his abdomen. To divert urine from the ileal conduit, bilateral nephrostomies were created. Unfortunately, an enterocutaneous fistula also erupted from his midline wound dehiscence that proceeded to discharge 3 to 6 litres of faecal output per day. Initially, the impression was the enterocutaneous faecal fistula would heal with time, but this did not occur. After approximately seven months, an attempt to endoscopically close the site of the fistula leakage was unsuccessful.

#### Cancer recurrence

A biopsy taken during the endoscopic procedure showed recurrent colonic disease. It was at this stage that a collective decision was made not to pursue any further surgical

intervention. Due to the multiple laparotomies and ensuing complications, this patient's journey has been full of challenges, both for the patient and the health care providers.

### Challenges

The major challenges faced by Mr TA and staff were the proximity of the stomas, high faecal and fistula outputs, stomal complications and protection of the peristomal and peri-wound skin.

*Ileostomy:* In Mr TA's case his ileostomy created dual challenges, which were a combination of the ileostomy spout being flush to the skin as well as the high output from the ileostomy.

*Ileal conduit:* Additionally, his ileal conduit was retracted, necessitating insertion of a Foley catheter to prevent stenosis.

*Fistula:* Mr TA's mid-abdominal enterocutaneous fistula, which had three openings, was draining 3–6 litres of faecal fluid daily.

*Stoma locations:* All the stomas were near each other (Figure 1).

## INTERVENTIONS: STOMA AND FISTULA MANAGEMENT STRATEGIES

### Peristomal skin care

The peristomal skin was cleansed with warm water from the tap, dried with chux (a soft woven cloth) and Cavilon™ No Sting Skin Barrier wipes were applied to the skin for protection. In some instances, Stomahesive® Protective Powder was used if the skin was eroded to provide further protection and encourage healing.

### Pouching strategies

Measurements were obtained of the diameters of the stomas and enterocutaneous fistula to find the pouches that would best suit individual management of each of the stomas and fistula, which were in very close proximity to one another. A decision was made to pouch the ileal conduit, ileostomy and fistula separately to accurately measure the output of each stoma and the fistula and to enable a better seal to prevent peristomal skin complications. It was found that the base plates of all the pouches needed to be trimmed to keep them separate and facilitate adherence to the skin (Figure 2).

The ileostomy was managed with a convex, high-output pouch that was connected to a long drainage bag to keep the bag empty. This was due to the significant amount of faecal output that was watery in consistency and classified as type 7 in accordance with the Bristol stool chart<sup>10</sup>. Attempts to regulate the faecal output with medications such as Loperamide, Lomotil, Codeine Phosphate and Octreotide subcutaneous injection all failed.

A 2-piece soft convex system was used to manage the ileal conduit in order to easily thread the Foley catheter through the base plate. And, further, the length of the high-output pouch accommodated the length of the Foley catheter when in situ.

The base of the wound pouch used to contain the fistula output was cut off-centre to keep the pouch separated from the other pouch as much as possible.



Figure 3 Patient's abdomen with pouches in place



Figure 4 Flow collector used to keep the pouches empty



Figure 5 Abdomen showing location of fistula, ileal conduit and ileostomy

## OTHER CHALLENGES

### Pain

One of the issues that coincided with changing all Mr TA's pouches was pain. It was evident from Mr TA's facial grimaces that changing his pouches caused him considerable pain. Mr TA, however, declined any analgesia most of the time, despite receiving frequent education on the importance and use of pain relief. Even though his facial grimaces indicated he was in pain, he always stated that after the procedure, the pain resolved; therefore, he thought there was no benefit in taking pain relief.

Due to the patient experiencing pain on pouch changes, minimising the frequency of routine pouch changes was an essential strategy for this patient. The pain experienced was mostly due to the pouch adhesives, the pressure applied to his abdomen to remove the pouches, when cleaning the skin and re-applying the pouches. The revised care plan to change the pouches twice a week only or when they leaked was well tolerated by the patient. The pouches were checked daily for intactness so that potential leaks were avoided. Additionally, the staff and the patient were encouraged to keep the pouches empty to reduce the weight, tension and drag on the adhesion between the pouches and his skin.

### Body image and maintaining dignity

The normal anatomy and physiology of the gastrointestinal or urinary systems are changed following creation of an ostomy<sup>11</sup>. An abdominal opening is created, allowing for the bowel, bladder or ureters to be exteriorised where the intestinal fluid or urine are diverted, the outflow of which is collected by external pouches. This results in marked changes for the individual in relation to physical appearance and day-to-day functioning of a person<sup>11</sup>. In the case of Mr TA, the impact of these changes on his body image were exacerbated thrice by the presence of three different pouches covering most of his abdomen (Figure 3).

Additionally, the output from his enterocutaneous fistula was explosive, erupting like a fountain at two points and a blowhole on another. This both embarrassed and frustrated Mr TA, who was most apologetic whenever the fistula discharged in this manner while the pouches were being changed. No matter how many times he was reassured that this was not his fault

and timing of the fistula discharging was beyond his control, he still felt helpless.

In this situation, it was important to make the mood lighter through light conversation to attempt to divert his attention from focussing on the presence and management of the fistula, which was found to be a useful strategy. This was a crucial factor in assisting Mr TA to maintain his dignity amidst the management of multiple stomas and the fistula.

### Odour control

The characteristic odour in faeces has obvious implications for patients with a stoma, which causes considerable concern when either wearing or emptying the pouch<sup>12</sup>. The odour emanating from Mr TA's pouches was difficult to minimise, despite using some drops of eucalyptus oil in the bag. This was attributed to the frequency of emptying the pouches due to the volume, thereby removing the efficacy of the eucalyptus oil that was dropped in the pouches. This led to feelings of shame for the patient and his family that was manifested by the amount of air freshener they used within the room. Changing the pouches two times a week was found to minimise the odour, so pouch changes were routinely set every Monday and Friday. The faecal pouches used by Mr TA had a charcoal filter to minimise the odour. In addition, long drainage bags were attached to all pouches to reduce the impact of odour (Figures 4 and 5).

### Discharge planning and no discharge destination

Another issue that arose was discharge planning. It became apparent that due to the complexity of Mr TA's care, such as the pouching changes, amount of ostomy and fistula output plus his requirements for intravenous fluids and palliative care needs, the options for a discharge destination were very limited. Returning home for Mr TA was not an option. There were not enough resources and services to cater to the patient's needs in the community. It was found that around the area where Mr TA resides, most of the nursing homes did not have the resources to provide his daily intravenous fluid needs, and the community nurses could not undertake the changing of his pouches for an extended period.

An option to teach Mr TA and his wife to change his pouches was attempted. Three weeks were devoted to teaching Mr TA and his wife the pouching regime, but it was proven to

be too difficult for his wife due to the technicalities of the pouching procedures and the unpredictability of when the stomas or fistula could potentially discharge. In addition, they needed suction equipment to assist with pouch changes. Further, if multiple instances of leakage occurred, they may have insufficient products to use in the home.

Nursing home options were explored three times, but after showing the nurse unit managers and more experienced staff the steps to change the pouches, they all concluded they would not be able to manage the pouching regimes within their facilities. Further, they did not have the resources and manpower to be able to handle the task. Mr TA would also need intravenous fluids to be able to replace ileostomy and fistula outputs. All efforts to support the nursing staff and nursing homes were provided through a step-by-step guide with photos on how to change the pouches. A PowerPoint presentation was also completed. The prospective facilities approached were reassured that ongoing stomal therapy support would be provided if the patient was accepted, but these strategies were to no avail.

The inability to find nursing home placement led to feelings of rejection from the patient and his family; therefore emotional support was provided by the stomal therapy nurse and social worker.

### Discussion

Approximately one-fifth of all stomas are sited during emergency procedures<sup>8</sup>. The incidence of complications associated with ileal conduit is reported to range from 15% to 65% and one of the most commonly reported complications are stoma or abdominal wall-related changes that includes stoma stenosis and retraction<sup>13</sup>.

Management of any resultant post-operative complications, therefore, requires a holistic and inter-professional approach to patient care<sup>9</sup>. Ideally, ileostomy and ileal conduit stomas should protrude several centimetres from the abdominal wall. The rationale for an extended spout is due to the amount, consistency and constituents of the faecal and urinary outputs. Added to that are the challenges presented to contain and protect the skin with higher stomal outputs in the presence of flush or retracted stomas<sup>14</sup>.

The management interventions revolved around three goals: to maintain skin integrity, minimise unnecessary pain and contain the effluent. Ensuring there was a pouching plan that facilitated good adhesion of the pouches to the skin to maintain patency of the seals was one of the main goals in view of the complexity of Mr TA's case. This would help to maintain his peristomal/fistula skin integrity. Ostomy effluent that is in contact with the skin is often the result of a less than optimal pouch fit<sup>15</sup>.

Promoting positive outcomes for patients with a stoma starts with an intact skin. This is the cornerstone of any stoma care and this was established. It is acknowledged that this was made possible by being able to access the necessary products to use, making the challenges physically achievable.

The hydrocolloid baseplates used to manage Mr TA's stomas kept his skin integrity intact, which also assisted in preserving his dignity and body image. The pouching systems chosen were the two-piece, convex, high-output Dansac Gx plus pouches, the seals of which were maintained. The soft convexity of the base-plate mildly pushed the flush to skin ileostomy outward, preventing leaks, plus it provided a snug fit around the retracted ileal conduit. Using hydrocolloid baseplates with convexity to enhance security of pouch adhesion to protect the peristomal skin is considered best practice<sup>15</sup>.

Using the Gx plus provided a longer wear time, allowing the pouches to be changed only twice a week. Not only was this more efficient time-wise, it was more economical product wise and more importantly this prevented unnecessary pain for the patient. As the incidence and threat of stomal pouch leakage decreased, this reduced Mr TA's anxiety and stress levels<sup>16</sup>.

The high ileostomy output was investigated, and the results were negative for any signs of infection. The quantity and content of the output, therefore, have been attributed by the treating surgical team to the small residual length and irritable nature of the bowel tissue, and his underlying malignancies. No diagnostic interventions were undertaken to identify any potential causes of intestinal insufficiency or intestinal failure. The pouching plan for the patient was effective for the whole year Mr TA was admitted and managed in our health service. The faecal ostomy/fistula output always fluctuated, despite all the medications and other interventions attempted to resolve the high output.

Apart from the physical challenges posed by management of the stomas and enterocutaneous fistula, there was Mr TA's patient's wellbeing to consider. Throughout all phases of his illness (pre-operatively, post-operatively and terminal care) he needed to know and feel he was supported mentally as well as physically. A higher level of psychological distress is recognised in stoma patients as they perceive a sense of loss of physical and emotional independence<sup>16</sup>.

Mr TA often refused any pain relief for the pain he experienced during pouch changes. The differences in perceptions of pain between genders, different cultural groups and those from diverse ethnic backgrounds and how they react to or tolerate pain are acknowledged, whereby some may appear to overreact and others to display relative tolerance or stoicism<sup>17</sup>. Potentially, as Mr TA was from an ethnic background, a pastor, and being highly religious impacted his views on and use of analgesia<sup>17</sup>. Through education, counselling and care of the stomal therapy nurses the Mr TA's anxiety was lessened<sup>16</sup>. Truly, there is an ongoing need for the patient to feel supported mentally and emotionally.

Most patients look to the health care provider for guidance on how to proceed and cope with their medical condition. A significant motivating and coping factor for patients is hope<sup>18</sup>, and this is what Mr TA held on to. To effectively cope and make decisions, hope is a critical aspect, which correlates with quality

of life and living with a stoma<sup>7</sup>. Health care providers play a significant role in patients' ability to cope and understand everything that is happening to them; hence, the importance of providing holistic care to patients and their family.

Additionally, the therapeutic relationship between the stomal therapy nurse and Mr TA was strengthened by the challenges that were overcome and the length of time he was cared for by the stomal therapy nurse. This provided Mr TA with some relief with regard to continuity of care and that no matter how difficult the pouching could be, the stomal therapy nurse would find a way to overcome these difficulties.

Creating a therapeutic relationship with Mr TA that was based on trust, mutual respect and a feeling of ease helped tremendously with managing this complex case. Establishing rapport early in the relationship assisted with his clinical and therapeutic management in the long term.

Promoting positive outcomes for patients with a stoma starts with an intact skin. This is the cornerstone of any stoma care and this was established. It is acknowledged that this was made possible by being able to access the necessary products to use, making the challenges physically achievable. The pouching plan for the patient has been effective for the whole year that the patient was admitted. The output has always fluctuated, despite all the medications and other interventions attempted for the care of this patient.

Mr TA was not able to be discharged home, nor was he placed in a nursing home; however, with the implementation of evidence-based ostomy and palliative care measures, towards the end of his life he remained comfortable.

## CONCLUSION

The best outcomes gained from this case were the learning experiences that came from resolving the challenges faced. This has reinforced the value of developing early therapeutic relationships between the patient, his family, stomal therapy nurse and the medical team. This case has clearly shown that being able to access different products makes the stomal therapy nurses' task manageable. And, more importantly, the need for continuous improvement and growth of the stomal therapy services as more complicated and complex cases arise.

## CONFLICT OF INTEREST

The author declares no conflicts of interest.

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## REFERENCES

1. Australian Government Cancer Australia. Bladder Cancer [Internet]. Australia: Bladder Cancer Statistics; 2018 [cited 2018 Sept 4]. Available from: <https://bladder-cancer.canceraustralia.gov.au/statistics>
2. Australian Government Cancer Australia. Bowel Cancer [Internet]. Australia: Bowel Cancer Statistics; 2018 [cited 2018 Sept 4]. Available from: <https://bowel-cancer.canceraustralia.gov.au/statistics>
3. Calderwood AH, Huo D & Rubin DT. Association between colorectal cancer and urologic cancers. *Arch Intern Med* 2008; 168(9):1003–1009. doi:10.1001/archinte.168.9.1003.
4. Liu Z, Chen G, Zhu Y & Li D. Simultaneous radical cystectomy and colorectal cancer resection for synchronous muscle invasive bladder cancer and cT3 colorectal cancer: Our initial experience in five patients. *J Res Med Sci* 2014; 19(10):1012–5.
5. Cronin E. Stoma siting: why and how to mark the abdomen in preparation for surgery. *Gastrointestinal Nursing* [Internet] 2014 Apr [cited 2017 Oct 16]; 12(3):12–19. Available from: CINAHL Complete.
6. Slater R. Optimizing patient adjustment to stoma formation: siting and self-management. *Gastrointestinal Nursing* [Internet] 2010 Dec [cited 2017 Oct 17]; 8(10): 21–25. Available from: CINAHL Complete.
7. Qureshi A, Cunningham J & Hemandas A. Elective vs emergency stoma surgery outcomes. *World J Surg Surgical Res* 2018; 1:1050.
8. Pengelly S, Reader J, Jones A, Roper K, Douie WJ & Lambert AW. Methods for siting emergency stomas in the absence of a stoma therapist. *Ann R Coll Surg Engl* 2014; 96:216–218. doi 10.1308/0035 88414X13814021679717.
9. Wasserman MA & McGee MF. Preoperative Considerations for the Ostomate. *Clin Colon Rectal Surg* 2017; 30:157–161.
10. Blake MR, Raker JM, Whelan K. Validity and reliability of the Bristol Stool Form Scale in healthy adults and patients with diarrhoea-predominant irritable bowel syndrome. *Aliment Pharmacol Ther* [Internet] 2016 [cited 2019 Feb 3]; (7):693. Available from: <https://login.ezproxy.utas.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsgh&AN=edsgh.462472621&site=eds-live>
11. Jayarajah U & Samarasekera D. Psychological adaptation to alteration of body image among stoma patients: a descriptive study. *Indian J Psychol Med* [Internet] 2017 Jan [cited 2017 Oct 31]; 39(1):63–68. Available from: Academic Search Ultimate.
12. Williams J. Flatus, odour and the ostomate: coping strategies and interventions. *BJN* [Internet] 2008 Jan 24 [cited 2017 Oct 31]; 17(2):S10–4. Available from: CINAHL Complete.
13. Szymanski KM, St-Cyr D, Alam T & Kassouf W. External stoma and peristomal complications following radical cystectomy and ileal conduit diversion: a systematic review. *OWM* 2010; 56(1):28–35.
14. Boyles A & Hunt S. Care and management of a stoma: maintaining peristomal skin health. *BJN* [Internet] 2016, Sep 22 [cited 2017 Oct 30]; 25(17):S14–S21. Available from: CINAHL Complete.
15. Nichols T & Purnell P. Are there advantages to barrier rings? *J WCET* 2014; 34(1):7–11 [Internet]. [cited 2019 Jan 28]. Available from: <https://login.ezproxy.utas.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsihc&AN=edsihc.273020111481012&site=eds-live>
16. Lee MWK, Wan YP, Lui TYL & Lo SKC. Quality of life, anxiety and depression levels of Chinese stoma patients in Hong Kong. *WCET J* [Internet] 2016 Jan [cited 2019 Jan 28]; 36(1):28–33. Available from: <https://login.ezproxy.utas.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=113971590&site=eds-live>
17. Khan M, Raza F & Khan I. Pain: history, culture, and philosophy. *Acta Med Hist Adriat* [Internet] 2015, Jan [cited 2017 Oct 31]; 13(1):113–130. Available from: Academic Search Ultimate.
18. Chunli L & Ying Q. Factors associated with stoma quality of life among stoma patients. *Int J Nurs Sci* 2014; 1(2):196–201 [Internet] [cited 2017 Nov 1]; (2):196. Available from: Directory of Open Access Journals.