



How simple bladder care is helping to improve outcomes for people with spinal cord injury

Transforming care for patients with spinal cord injury in Haiti

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Abstract Stephenson F (2012) Transforming care for patients with spinal cord injury in Haiti. *Nursing Times*; 108: 18/19, 22-23. Patients with spinal cord injury in Haiti previously had a poor prognosis. This article features a case study showing how care was transformed after the earthquake in 2010 by providing simple bladder care.

Before the earthquake in Haiti in January 2010, spinal cord injury (SCI) was a specialty that was poorly understood in the country. Anecdotally, most patients with SCI were hospitalised for two weeks and then discharged home. Many were sent home with indwelling catheters or coped with urinary incontinence.

The survival rate of those with SCI in developing countries has been 1-2 years post injury (Rathore, 2012). One main reason for morbidity and mortality is overwhelming urinary tract infections (UTIs) and pyelonephritis (Consortium for Spinal Cord Medicine, 2006) with associated renal damage. Even now medical treatment and surgical intervention is extremely limited for patients with SCI (Landry et al, 2010).

This case study provides an example of simple bladder care for a male patient who had sustained a SCI in the earthquake. Education in the local language is key to implementing new knowledge and skills and avoiding miscommunication for patients/caregivers and health professionals.

Case study: bladder care in SCI

Jean-Paul Laurence* is a 34-year-old man who sustained a SCI in the 2010 earthquake. He was transferred from another hospital five months post injury to the Haiti Hospital Appeal (HHA) SCI rehabilitation unit (www.haitihospitalappeal.org).

Mr Laurence lived with his partner and children, who are believed to have all died in the earthquake. He was transferred to north Haiti during the evacuation of patients and has remained alone ever

since; it is still not known if he has surviving relatives or friends.

On admission, he complained of lower abdominal and flank pain, was pyrexial and shivering, severely cachexic and dehydrated. He had a large sacral pressure ulcer measuring 20cm x 15cm, and the depth was down to the sacral bone; he also had bilateral heel pressure ulcers.

Mr Laurence had an indwelling catheter, which was draining thick, dark, cloudy urine; clinically he had all the signs of pyelonephritis. Although simple microscopy was undertaken, culture and sensitivity could not be performed by laboratory testing due to the minimal facilities available locally at that time. Therefore, due to the risks related to pyelonephritis, an intravenous infusion and strict input/output fluid balance chart were started. He was prescribed a course of IV ciprofloxacin (Dow et al, 2004) and analgesia for pain.



The decision was made to continue with an indwelling catheter to:

- » Monitor fluid balance carefully due to the presenting medical condition;
- » Prevent the risk of contamination and infection of the healing sacral pressure ulcer (Stephenson, 2011).

Mr Laurence had a new urinary catheter inserted and a bladder irrigation procedure was performed, containing 10% povidone-iodine in sodium chloride and 0.9% irrigation solution (once his allergy status had been checked).

Although he was encouraged to eat and drink, this was difficult initially as Mr Laurence was so frail. He was prescribed high-protein drinks, multivitamins and offered three free meals a day to treat malnutrition and aid healing and weight gain. With time, he progressed from managing only soup and fresh fruit juice to three full meals a day.

Mr Laurence was encouraged to drink three litres of fluid each day and his catheter was changed every six weeks, or before

if clinically indicated. Nurses were encouraged to ensure the catheter was taped to his abdomen to reduce pressure and the known associated risk of bladder and urethral trauma/erosion (Fig 1 shows an example in another patient). His catheter bag was changed every week – when supplies were available. During this time the patient had two UTIs, which were treated with oral ciprofloxacin (Dow et al, 2004).

A simple (home made) cystometrogram procedure identified a neurogenic bladder and Mr Laurence started an intermittent self-catheterisation (ISC) programme seven months post injury (two months after admission to the unit). Correct instruction in technique and safe catheter storage was vital due to the high risk of infection for the following reasons:

- » Using single-use catheters “once only” is not possible due to availability and prohibitive cost for clients – in my experience in Haiti, catheters will last 9-12 months before being discarded, if the correct procedure is followed;
- » Access to medical treatment is difficult;
- » A hot, humid climate;
- » Sporadic or unavailable electricity at home – no refrigerator access;
- » Poor sanitary conditions. The emphasis on safe water became imperative following the cholera epidemic that spread through Haiti from October 2010 (World Health Organization, 2010). Education for Mr Laurence was individualised, with much time spent discussing the following: risks associated with a neurogenic bladder; back pressure to the kidneys if the bladder is not emptied every 4-6 hours and pyelonephritis; the reasons for hygiene and handwashing; and the practical technique of inserting the catheter.

He had experienced a severe UTI, probably pyelonephritis, before admission, and did not want to endure the symptoms again, so was willing to follow the strict method of ISC and associated cleanliness.

Mr Laurence perfected this procedure himself in less than one day, and therefore his fluid intake was reduced to two litres per day. He continues to self-catheterise every four hours during the day and six hourly overnight. He demonstrated his