Management of voiding difficulties associated with pregnancy

The purpose of this paper is to share the lessons learnt from a clinical experience that involved a woman who developed difficulties passing urine after the birth of her second child. Maximising learning is a crucial aspect of health professionals’ work in an increasingly litigious society where the NHS regularly receives negative publicity and staff fear prosecution (Department of Health, 2001).

Creating a supportive environment built on openness and honesty is a good starting point for examining clinical practice with the aim of improving our contribution to health care. This paper will briefly describe the clinical experience, explore the issues it raises, and suggest recommendations for improved care.

Case study

Barbara Emery gave birth to her second son by vaginal delivery, with epidural analgesia and a labour time of over 13 hours. During Ms Emery’s labour, 550ml of urine was drained from her bladder using a urinary catheter.

Following childbirth, Ms Emery voided occasionally overnight, passing only small amounts of urine. During the next 12 hours she became increasingly uncomfortable and the midwives inserted an indwelling balloon urinary catheter, which drained 1,800ml of urine from her bladder.

The catheter was maintained on free (continuous) drainage for two days. It was then removed but Ms Emery was unable to pass urine, and it was replaced and continued on free drainage. Ms Emery was discharged and returned home with the catheter after a referral was made to the continence promotion service.

Within 24 hours of discharge the continence promotion service visited Ms Emery at home to assess her situation, discuss a management plan for rehabilitating her bladder, and educate her on how to use a catheter valve for intermittent bladder drainage every three hours during the day.

Catheter valves are an alternative to allowing urine to drain freely into a catheter drainage bag. The valve is connected to the catheter outlet and can be opened at regular intervals to allow urine to drain out (Fig 1).

Reflection

Particular issues raised are:

- The management of post-partum urinary retention;
- The patient’s understanding of why this has occurred;
- The impact on mother and baby bonding.

Risk factors for voiding difficulty

Post-partum urinary retention is a surprisingly common phenomenon that is well reported, yet does not always receive adequate attention in clinical settings. Ching-Chung et al (2002) studied 114 women with post-partum urinary retention, comparing parameters such as age, duration of labour and post-void residual volume with a control group of 2,752 women. Results of the study suggested that long labour, use of epidural analgesia, instrumental delivery, nulliparity (not having given birth before), and significant vaginal and perineal laceration may be associated with increased risk of developing urinary retention.

This supports earlier research by Yip et al (1997) that identified an incidence of post-partum urinary retention of 14.6 per cent in 891 women. What is particularly interesting about this study is the categorisation of overt and covert urinary retention.

Although the study demonstrates that covert urinary retention (no urinary symptoms, but with a residual urine equal to or greater than 150ml) is self-limiting, little conclusive work has been done on the long-term effects of this condition. In clinical practice, covert urinary retention may go undetected, with a consequence of chronic voiding difficulties. Groutz et al (2001) observed that persistent post-partum urinary retention was rare. However, their study group was very small.

From the literature, two phases emerge as significant in relation to post-partum urinary retention. First, the risk factors identified earlier may inhibit spontaneous complete voiding immediately after childbirth. Second, over-distention due to delayed diagnosis can cause bladder injury and lead to persistent voiding difficulties (Cardozo and Gleeson, 1997).

Preparing a plan of treatment

During the first visit to Ms Emery, it was important to establish what she understood about her situation and to enable her to express any anxieties and concerns.
We used anatomical diagrams to help her understand her condition and talked through the different options for bladder rehabilitation.

Ms Emery raised a question about how long it would take to return to pre-childbirth bladder health. Although this was a difficult question to answer definitively, Ching-Chung et al (2002) found that out of the 114 women they studied, two women continued to experience problems at nine months following childbirth.

These problems included frequency, urgency and voiding difficulties. For these two women, the immediate post-partum residual urine volume was equal to or greater than 900ml.

However, Yip et al (1997) found that their study group did not present with a residual urine volume after four days, despite having volumes as large as 1,000ml. This suggests that more research is needed to understand if injury associated with over-distension of the bladder is possibly a factor explaining why women may continue to experience bladder symptoms in the long term.

Shah and Vakalopoulos (2002) suggest that impaired bladder sensation and reduced detrusor contractility may be a result of over-distension of the bladder. If functional bladder capacities can vary between individuals, it is reasonable to suggest that their critical over-distension volume will also vary.

Bladder rehabilitation Intermittent self-catheterisation (ISC) is considered to be the ‘gold standard’ of artificial bladder-emptying mechanisms (Madersbacher et al, 2002). Following discussion and agreement on when to remove Ms Emery’s indwelling balloon catheter, we commenced a learning programme for ISC.

Ms Emery did not experience any bladder sensations while intermittently draining her catheter using a valve. It was therefore important that the frequency of ISC aimed to prevent no more than 400ml of urine collecting in her bladder. Her already stretched bladder could have coped with increased volumes but to allow recovery it was important that we did not cause further damage. Forty-eight hours after discharge, Ms Emery was psychologically upbeat and motivated despite being tired as a result of breastfeeding her new child and managing a boisterous toddler.

Ms Emery became successful at performing ISC within a very short time and bladder diaries revealed a need to catheterise every three hours during the day. At night, ISC was performed after a breastfeeding session, as Ms Emery experienced feelings of discomfort that were relieved when the bladder was emptied.

Recovery was slow but progressive, possibly due to the time it takes for parasympathetic nerve fibres to regenerate following disruption (Jeffrey et al, 1990).

Over the following weeks, bladder diaries revealed a switch from large ISC volumes to spontaneous voiding of urine following a return of bladder sensation.

Communication between the midwife, consultant gynaecologist and continence promotion service was important for sharing information and keeping each other informed of the situation.

Although the urologist was aware of the case, a referral to the urology service was thought to be unnecessary at this stage. Two main reasons underpinned this decision. First, there was confidence in the diagnosis. Second, while the urologist could offer a cystoscopy (examination of the bladder using a cystoscope) and urethral dilatation, there was no indication that this was appropriate.

Impact on new relationships Mother and baby bonding had been affected by the impact of the bladder dysfunction. Ms Emery believed that the effects of the first few weeks following childbirth had resulted in a lack of bonding with her child.

Findings from Sluckin (1994) suggest that this may have been a consequence of Ms Emery needing to pay attention to herself, both physically and emotionally, which reduced her availability to develop a relationship with her baby.

Counselling sessions were arranged in order to assist Ms Emery in untangling her emotions. Part of this process involved dealing with her suppressed anger about her bladder dysfunction.

Although rehabilitation continued successfully for the next few weeks until ISC was only being performed every second night, there were many questions that Ms Emery felt were unanswered. In light of this, she was offered a meeting with the health care professionals who had managed her care, so that we could explore the perspectives of each person and maximise learning.
from this experience. However, Ms Emery did not feel ready to take this step. It was decided that she would write the events down as it was agreed that this might be therapeutic.

**Working together better** The development of clinical guidelines assists in the delivery of consistent practice and can provide a protective framework in which the health care professional can function (Lugon and Secker-Walker, 1999).

Through discussion and an initiative led by the midwifery team, a management flowchart for the early implementation of bladder care for a woman who presents with voiding difficulties following childbirth was devised. Although the guidelines are currently being ratified and introduced by the organisation, the process of their development has already raised awareness of bladder health during and after childbirth.

Mackenzie (2002) illustrated the success of improving standards through collaborative working between the maternity unit and continence services. This work provides a useful benchmark for the examination of local services and illustrates how provision of care can be improved by simple measures, such as early involvement of continence services. Joint working is essential to avoid inappropriate measures being used to manage a patient with voiding difficulties and to avoid late referral to continence services.

**Doing things differently** Reflection on clinical practice can assist professionals in challenging their own assumptions and adjusting their behaviour (Taylor, 2003). Doing things differently and improving practice often occurs as the result of an unexpected outcome or when something is going wrong. What could we have done differently in this case? Critical analysis is outside the scope of this paper but we can say that Ms Emery’s problem should not have arisen and key learning points can be identified (Box 1).

**Conclusion** Ten months after delivery, Ms Emery continues to improve. At the time of writing she was performing ISC every third night. Despite this, bladder sensation has returned without any urinary incontinence.

Managing voiding difficulties following childbirth requires proactive management that is collaborative and recognises the potential psychological impact on the woman and her new baby.

The opportunity for maximising learning should always be seized, even when professionally uncomfortable, so that we can continue to deliver high standards of care.

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**FOOTNOTE**
The Chorley and South Ribble Multiprofessional Continence Team were runners up in the Nursing Times Awards 2002.

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**REFERENCE**

**Department of Health (2001)**
National Service Framework for Older People. London: DoH.

**Department of Health (2000)**
Good Practice in Continence Services. London: DoH.


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**‘Getting it together’**

In 2003 the Chorley and South Ribble Multiprofessional Continence Team won the Department of Health’s Health and Social Care Award for Primary Care. The team used part of its prize money to fund a conference to promote the benefits of multiprofessional working.

The team consists of a nurse continence adviser, a physiotherapist, and an occupational therapist. Nurse continence adviser Ian Pomfret described the development of the team, which was the first of its kind in the UK. ‘The Chorley model of integrated continence services enables fast-tracking of patients to the most appropriate health care professional. In effect, it’s a ‘one-stop shop’ for patient care.’

The need for integrated services was highlighted by Sue Thomas, nursing policy adviser at the RCN. In 2000 the DoH published *Good Practice in Continence Services* (DoH, 2000). This document introduced new national guidance for the reform of continence services in England and Wales.

Ms Thomas presented the results of a survey *Is policy translated into action?* (Thomas, 2004), which explores the impact that this guidance has had on primary care. The survey revealed a network of highly qualified clinicians, continence nurses and therapy specialists who are moving continence services forward. Ms Thomas identified that government priorities have created competing demands in primary care that have led to ‘service development inertia in some areas’.

She noted that the development of modern continence services depended mainly on organisational change rather than large financial investment. The *National Service Framework for Older People* (DoH, 2001) requires that integrated continence services are developed by April 2004.

The results of the survey suggest that, at the current rate of development, this goal will not be achieved. However, by identifying key areas for action it should be possible to help services move more quickly towards this target.

Brigid Dimond, emeritus professor at the University of Glamorgan, explored the legal aspects of multiprofessional continence care.

She reminded delegates that ‘the law does not recognise the concept of team liability as individuals are professionally accountable for their actions’.

In a conference presentation that raised many questions from the delegates, Ms Dimond emphasised the need for accurate record-keeping. She noted that this was a crucial part of communication when professionals work in teams.