

## **RANDOMISED CONTROLLED TRIAL OF THE CLINICAL AND COST EFFECTIVENESS OF EXISTING CONTINENCE SERVICES COMPARED WITH A NEW NURSE-LED SERVICE.**

### **Aims of Study**

Current care provision for urinary symptoms is fragmented and inconsistent with consistent care pathways rarely in place. The aim of this study was to evaluate the impact of a new Continence Nurse Practitioner (CNP) led service compared to existing primary/secondary care provision for individuals with urinary incontinence and storage symptoms.

### **Methods**

3746 community dwelling men and women aged 40 years and over were recruited into a randomised controlled trial. Individuals were randomised either to a new nurse-led service or existing care in the ratio 4:1; intervention n=2958 and control n=788. The intervention comprised a CNP led service, provided by nurses who had undergone extensive training (1), delivering standardised evidence based interventions for storage symptoms (2). The primary outcome measures were validated symptom questions on incontinence, frequency, urgency and nocturia (3), with secondary outcome measures comprising a validated impact scale (4) on activities and feelings, cost-effectiveness and satisfaction. All outcome measures were recorded at baseline and at 3 and 6 months post randomisation.

### **Results**

At 3 months, the intervention group had significantly less leakage 63% v 70%,  $p=0.002$ , frequency 30% v 37%,  $p=0.001$ , urgency 33% v 40%,  $p=0.0005$  and nocturia 20% v 27%,  $p=0.0003$ . At six months the difference was maintained for frequency, urgency and nocturia. There was a significant difference in impact scores relating to activities, feelings, relationships and quality of life between the two groups at three and six months. At three months, the absolute change from baseline in the overall impact scale was calculated as  $-3.57$  (SE 0.13) for the CNP group and  $-2.65$  (SE=0.25) for the GP group resulting in a absolute difference between the groups of  $-0.92$  (95% CI  $-1.48$  to  $-0.37$ ,  $p=0.001$ ). Individuals who had had contact with either a GP or CNP during the follow-up period were required to complete a satisfaction questionnaire (91% (2505) of the CNP group and 81% (618) in the GP group). 92% of individuals in the CNP group reported satisfaction with the service generally compared to 77% in the GP group ( $p<0.0001$ ). Cost-effectiveness analysis indicated a cost per symptom alleviated (NHS costs) of £251 (exchange rate March 2003: 1 GBP = 1.45770 Euro) at 3 months.

### **Conclusions**

The nurse led intervention reduced the symptoms of incontinence, frequency, urgency and nocturia at 3 and 6 months, impact was reduced and satisfaction with the new service was high. Long term follow-up of the intervention is crucial to establish whether improvements in symptoms persist over time.

### **References**

1. Authors names removed to maintain anonymity. Educational preparation for specialist practice in continence care. British Journal of Nursing, 8:18; 1198-1207, 1999
2. Authors names removed to maintain anonymity. Good practice in continence care: The development of evidence-based protocols for a new nurse-led service. British Journal of Nursing, 11:8; 548-559, 2002
3. Authors names removed to maintain anonymity. Validity and reliability of a questionnaire to measure the severity of lower urinary tract symptoms of storage abnormality. British Journal of Urology International 2002 90:205-215

4. Authors names removed to maintain anonymity. Validity and reliability of a questionnaire to measure the impact of lower urinary tract symptoms on quality of life: the Leicester Impact Scale. *Neurourology and Urodynamics*. 2003. (in press)