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Institution City Country	Minchinbury Urology Unit; St. George Hospital; Westmead Hospital; Sydney Adventist Hospital, Sydney, NSW, Australia.
Title (type in CAPITAL LETTERS)	AN APPRAISAL OF THE FINANCIAL AND SOCIAL BENEFITS OF AN INTRAURETHRAL DEVICE FOR THE TREATMENT OF FEMALE ATONIC BLADDER.

**Aims of Study:** Incomplete bladder drainage may be judged to precipitate recurrent UTI's and lithiasis. Repeated medical intervention proves time consuming for the physician, demoralising and financially debilitating for the patient and medical institutions. Whilst Intermittent Self Catheterisation and Indwelling Catheterisation are cost effective, the perpetuation of UTIs (which contains hidden management costs such as diagnostic testing, medications and occasionally hospitalisation), suggests that alternative methods of bladder drainage should be investigated.

Clinical experience using the In Flow<sup>™</sup> device has demonstrated complete bladder drainage versus residual urine volumes in traditional drainage methods. The objective of this study was to assess the number of UTI's requiring intervention post In Flow<sup>™</sup> insertion compared with the patient's own previous experience using traditional methods.

**Methods:** The In Flow<sup>™</sup> device is a transurethral silicone sheath with six silicone fins retaining it in the bladder neck and a outer flange situated at the urethral meatus. An iron boron magnet contained within the sheath spins to open a valve and impel forward urine to completely drain the bladder. This is remotely controlled by a battery operated activator.

23 patients were treated between October 1997 and March 1999. Baseline investigations included Mid Stream microbiology and Quality of Life assessment and were repeated at regular intervals post insertion. Using an equivalent time frame prior to insertion against the period of device use, the number of episodes of symptomatic UTI requiring hospitalisation were analysed. Quality of Life changes were also evaluated within this group of patients to quantify the value, in social terms of this device.

**Results:** In this group of 23, eight women required hospitalisation for the specific management of UTI pre In Flow insertion. Following the adoption of the In Flow device no patient required hospitalisation for this condition. Seven women experienced a singular UTI during the year post insertion versus an average of 4 per patient per year pre insertion. Three patients experienced episodes of symptomatic UTI which were treated with oral antibiotics while maintaining the device in situ. Percentage changes in Quality of Life scores based on a validated (i) questionnaire showed a significant mean percentage improvement against baseline of 57% at one month to an improvement of 77% at 6 months and 82% at 12 months. Whilst catheters were initially changed routinely at 4 week intervals, this was increased by bi-weekly intervals to reach 16 weeks usage per catheter in most instances. Four patients resumed normal voiding function after 5 - 8 months (mean 6.5 months) and are now voiding unassisted.

**Conclusions:** The In Flow catheter offers an alternative form of effective urinary drainage with diminished rate of infection and Quality of Life scores, thus easing the financial and human resource burden of frequent physician consultation. More importantly the number of patients who resumed normal bladder function. Longer term follow up will establish the viability of this device as a permanent solution for the management of female atonic bladder.

(i) Urology Vol 47, No 1: Ppoc 67-72. "Quality of Life of people with urinary incontinence: development of a new measure"