

## THE COST OF A CONTINENCE SERVICE IN THE ACUTE HOSPITAL – IS IT BEING “COUNTED”?

### Aims of Study

Many acute hospitals provide a continence service, whereby patients admitted for other reasons but who have pre-existing or de novo urinary /faecal incontinence, can receive appropriate care. In the present era of economic rationalisation, the cost of such a service, the outcomes provided, and whether this continence care affects the DRG (Diagnostic Related Group) for that patient requires documentation. We need to ensure that continence management is adequately funded. Thus, we aimed to measure costs, outcomes and DRG coding in a target sample group, as part of an overall study of the costs of incontinence in our country.

### Methods

The study was undertaken in 3 parts. Firstly, we recorded nursing staff times for all activities of the Continence Service over 6 days (2 days x 3 Nurse Continence Advisors, NCA), such as First Assessment, Ongoing treatment, Trial of Void, Discharge Plan. The staff time (\$AU 23.40 /hr for NCA) and associated costs were noted. The treatment activities for a consecutive series of 80 patients referred to the Service (10 women of childbearing age, 11 patients with dementia, 39 elderly / frail elderly, 20 with incontinence of neurological origin, the target groups for the national study) were calculated. At each visit, the NCA affixed a green adhesive label to the clinical notes, and made separate records on index cards. The notes / index cards were analysed- time spent per patient was calculated from the typical observations over 6 days, other interventions (bladder scan / MSU) were tallied. Note 1 AU\$ = 0.60 Euro.

Secondly, clinical outcomes were categorised: (A) Transient incontinence, resolved with treatment before discharge. (B) Treatment program commenced & pursued through to discharge, with appropriate followup. (C) Social continence provided by correct pads/ toileting education/ uridome etc. (D) Grossly debilitated patients in whom continence not possible: appropriate containment products + education provided. (E) Patient deceased. (F) Patient discharged without informing NCA, management not completed.

Thirdly, the clinical coding of incontinence within the DRG was assessed, after discharge and routine processing in the Coding Department.

### Results

Part One: Results are mean ( $\pm$ SD) except women of childbearing age: data was not normally distributed, thus median (interquartile range) given.

**TABLE ONE: COSTS OF NCA WARD VISITS FOR INCONTINENCE (Mean + SD)**

	Ave Age	Ave time /patient	Ave nurse cost/pt AU\$	Bladder Scans (n)*	MSU (n)**	Total Ave Cost/ pt
Childbearing N = 10	33	75 min ( $\pm$ 48)	29\$ ( $\pm$ 19)	4	4	37\$ (18-64)
Dementia N=11	85	86 min ( $\pm$ 35)	34\$ ( $\pm$ 14)	14	6	46\$ ( $\pm$ 32)
Elderly N = 20	83	91 min ( $\pm$ 38)	36\$ ( $\pm$ 14)	23	11	51\$ ( $\pm$ 21)
Frail Elderly N = 19	86	93 min ( $\pm$ 37)	37\$ ( $\pm$ 14)	33	17	59\$ ( $\pm$ 23)
Neurological N= 20	79	101 min ( $\pm$ 43)	39\$ ( $\pm$ 17)	26	13	59\$ ( $\pm$ 28)

\* Cost for each bladder scan (equipment depreciation = \$2.90). \*\*Cost per MSU culture = \$20.10

Part two: the clinical outcomes were:

A) Transient incontinence, resolved with treatment	N = 14 (17.5%)
B) Treatment program followed through to discharge	N = 26 (32.5%)
C) Social continence provided	N = 11 (13.75%)
D) Grossly debilitated patients: Appropriate containment	N = 6 ( 7.5%)
E) Patient deceased	N = 6 ( 7.5%)
F) Patient discharged without informing NCA	N = 11 (13.75%)

Part Three. After discharge and routine processing in the Coding Department, the DRG code was assessed for completeness with respect to notation of urinary and/or faecal incontinence.. Patients with transient incontinence, who responded to treatment and did not have leakage within 7 days prior to discharge, are not eligible for an Incontinence Code in our country. Those deceased still undergo routine DRG coding. In order to allow full flexibility for any coding, the assignment of Urinary Tract Infection (UTI) or Urinary Retention was allowed (although such patients were not in the study if they did not have documented incontinence/ NCA treatment).

**TABLE TWO: COMPLETENESS OF DRG CODING FOR ANY INCONTINENCE**

	Notes Avail.	Transient Leakage	Study group	No. coded with diagnosis of Incontinence disorder	Incomplete Coding
Childbearing N = 10	N = 10	2	8	0	8/ 8 (100%)
Dementia N + 11	N = 8	0	8	5: Retention Incontinence UTI 3 1 1	3/ 8 (37%)
Elderly N = 20	N = 17	2	15	4: Retention Incontinence UTI 1 1 2	11/ 15 (73%)
Frail Elderly N = 19	N = 19	4	15	8: Retention Incontinence UTI 1 4 3	7/ 15 (47%)
Neurological N = 20	N = 20	6	14	8: Incontinence UTI Urine + Faecal Incontinence 2 5 1	6/ 14 (43%)
Total = 80	N = 74	14 (19%)	60	25	35/ 60 (58%)

Any Incontinence was correctly coded in only 62% of cases. Of 8 patients with non-transient faecal incontinence, only 1 case was coded.

**Conclusions**

Considering that the average total management costs per patient ranged from 37\$ - 59\$ in salary and basic expenditure alone, it was disturbing to realise that urinary and faecal incontinence are so poorly coded within the DRG system. These costs were simply those for the NCA visit to the ward, but incontinent patients are known to provoke increased costs for care by the general ward staff, e.g. linen costs, staff time to prevent pressure sores, etc, which could not be measured within the present framework.

The fact that "Transient Incontinence" (19% of the study group) is not eligible for DRG coding is quite unsatisfactory, as most of these patients were actually responding to the treatment provided by the Continence Service. Such a coding mechanism ignore the patients who have benefited most from the Service and impairs the financial validity of the Service.

In summary, 58% of the study patients and all of the Transient incontinence patients were not captured by the current DRG coding system. The value of our work is not being adequately recognised by the present funding system.