

## PREDICTION OF OUTCOMES OF URINARY CARE BY ASSESSMENT OF BLADDER FUNCTION - A PROSPECTIVE STUDY OF 94 DEPENDENT ELDERLY INPATIENTS WITH URINARY INCONTINENCE

### Hypothesis / aims of study

Successful urinary care for the dependent elders with urinary incontinence depends on the bladder function, activity of daily living(ADL), and the motivation of care helpers. The outcomes of one month intervention for urinary care were analyzed by focussing bladder function in term of urinary status, way of management, independence function, mental activity and urinary care burden of staffs.

### Study design, materials and methods

In a year of 2010, 94 elders (35 male & 59 female ; mean age of 78.8 ± 21.1 years) admitted in 8 collaborated hospitals in Japan were included for the study after obtain-ing an informed consent from the elders or their family. Underlining conditions were stroke and/or CNS disease(n=41), dementia(33), cardio-circulatory distress(12) and other illness(38). Bladder function was evaluated by a diaper check-up program, which was reported in ICS 2007 and 2008 by us. In brief, diapers were examined every hour during 24 hours, and upon any urinary loss in the diapers, we measured the amount of voided urine using a scale, and estimated residual urine by trans-abdominal ultra-sonography. The three variables (frequency, mean volume of voided urine & residual) yield a score of bladder function. Scores were also given to other related conditions including 1)the number of pads, wet volume and the extent of urinary leak-age, 2)mental-physical ability for asking & moving to toilet, and 3)urinary care bur-den. The urinary care consisted of reasonable water intake, prompted voiding, watch for urgency and cystitis. After one month of care, these scores were re-assessed and analyzed in correlation to 1)status of urinary appliance, 2)change of their mental-physical activity, such that awakening, communication, willing to go on a diet & reha-bilitation training, and 3)the urinary care burden of time, manpower and mental stress..

### Results

The urinary care teams in 8 hospitals achieved 1) diaper-free in 20(22%) cases, 2) improvement of urinary leakage in 39(43%), 3) improved mental activity in 22~32% and 4) increased urinary care burden in 27~46%. The mental-physical ability and bladder function could predict the effectiveness of care.

### Interpretation of results

The dependent elders with urinary incontinence can achieve improvement in their voiding conditions by interventions on urinary care. The improvement is predicted by fairly normal bladder function and mental-physical ability status. Assessment of these conditions prior to care interventions may facilitate efficient care for elders with diapers, supporting motivation of care-givers of such elders by avoiding unrewarded efforts.

### Concluding message

Assessment of bladder function by a diaper check-up program improved efficacy of urinary care for incontinent elderly by predicting elders with potential effectiveness by nursing care.

<b>Specify source of funding or grant</b>	<b>None</b>
<b>Is this a clinical trial?</b>	<b>Yes</b>
<b>Is this study registered in a public clinical trials registry?</b>	<b>No</b>
<b>Is this a Randomised Controlled Trial (RCT)?</b>	<b>No</b>
<b>What were the subjects in the study?</b>	<b>HUMAN</b>
<b>Was this study approved by an ethics committee?</b>	<b>Yes</b>
<b>Specify Name of Ethics Committee</b>	<b>Ethical Committee of Specified Med. Co. Kitakyusyu hospital group and The Japanese association of Geriatric Urology</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>Yes</b>