



شبكة المعلومات الجامعية  
التوثيق الإلكتروني والميكروفيلم

# بسم الله الرحمن الرحيم



**MONA MAGHRABY**



شبكة المعلومات الجامعية  
التوثيق الإلكتروني والميكرو فيلم



# شبكة المعلومات الجامعية التوثيق الإلكتروني والميكرو فيلم



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التوثيق الإلكتروني والميكروفيلم

# جامعة عين شمس

## التوثيق الإلكتروني والميكروفيلم

### قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



### يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



**MONA MAGHRABY**



# **PREVALENCE AND RISK FACTORS OF URINARY INCONTINENCE IN FRAIL ELDERLY MALES**

Thesis

Submitted for Partial Fulfillment of Master Degree  
In Geriatrics and Gerontology

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# Appendices

## 1. Master Sheet

- Serial No: ..... Date: ..... Tele no: .....
  - Name: ..... Age: ..... Setting: .....
- 

- 1) Marital status                      1. Married                      2. Not married
- 2) Education: .....years
- 3) Smoking    1. Yes                      2. No.  
    If yes:      1. Current                      2. Ex-smoker                      Smoking index: .....
- 4) Alcohol abuse: ..... Caffeine abuse: .....  
    Duration: .....
- 5) History of UI:    1. Yes                      2. No  
    Duration: .....
- 6) History of fecal incontinence: 1.Yes      2.No  
    Duration: .....
- 7) Other comorbidities:  
.....  
.....  
.....
- 8) Drug history:  
.....  
.....
- 9) Surgical history:  
.....
- 10) Wt: ..... Ht: ..... BMI: .....
- 11) Neurological examination.....  
.....
- 12) Clinical frailty scale: .....

13) ICIQ-UI SF:

How often do you leak urine?

.....

We would like to know how much urine you think leaks.

How much urine do you usually leak (whether you wear protection or not)?

.....

Overall, how much does leaking urine interfere with your everyday life?

Please ring a number *between 0 (not at all) and 10 (a great deal)*

.....

ICIQ score:

1. Mild (1-5).

2. Moderate (6-12).

3. Severe (13-18).

4. Very severe (19-21).

14) Type of UI: .....

15) **IIQ-7 SF:**

Question 1: Praying? .....

Question 2: Housekeeping? .....

Question 3: Physical Recreational Activities? .....

Question 4: Social Activities? .....

Question 5: Travelling? .....

Question 6: Anxiety/Frustration? .....

Question 7: Depression/Hopelessness? .....

16) MMSE: ..... / 30

17) GDS: ..... /15

1. + Ve

2. - Ve

18) ADL: 1. Independent

2. Assisted

3. Dependent

19) IADL: 1. Independent

2. Assisted

3. Dependent

20) AUA score: ..... Mild (0-7)

Moderate (8-18)

Severe (19-35)

21) Urine analysis:

Pus cells:

## **Abstract**

**Background:** Urinary incontinence (UI) is a major geriatric problem, that is underestimated in frail older males.

**Aim:** To identify risk factors of impaired QOL among frail older males with UI.

**Methods:** A cross-sectional study including 120 frail older males attending Geriatric Hospital at Ain Shams University Hospitals. Sixty subjects had UI. Participants were tested by the Arabic version of International Consultation on Incontinence Questionnaire-Urinary Incontinence Short Form (ICIQ-UI SF), the American Urological Association symptom index (AUA-SI) and the Arabic version of Incontinence Impact Questionnaire; short form (IIQ-7 SF) to measure the severity of UI, lower urinary tract symptoms and health-related QOL respectively.

**Results:** Mixed form of UI (40%) was the most prevalent type followed by urge UI (38.3%). Prevalence of depression was 56.67%. More than 90% expressed emotional health affection and more than two thirds had difficulty praying, travelling and performing physical and social activities. Most of the domains were affected in patients with mixed or urge urinary incontinence, compared with other types of UI. A positive relationship was found between severity of UI symptoms and severity of QOL impairment in all domains. UI-associated QOL was positively affected by social isolation, depression, functional dependence, advanced frailty status, severe UI, long UI duration, presence of chronic constipation and using alpha-blockers. Social isolation was the only independent predictor for decreased UI-associated QOL.

**Conclusion:** UI exerts negative impact on QOL of frail older males through social and psychological factors, functional level, frailty status, comorbidity, medication use, and severity and duration of UI symptoms.

**Keywords:** urinary incontinence, frail older males, QOL

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## List of Abbreviations

|              |       |  |
|--------------|-------|--|
| <b>ACEIs</b> | ..... | Angiotensin converting enzyme inhibitors           |
| <b>AD</b>    | ..... | Alzheimer's disease                                |
| <b>ADH</b>   | ..... | Antidiuretic hormone                               |
| <b>ADL</b>   | ..... | Activities of daily living                         |
| <b>ANP</b>   | ..... | Atrial natriuretic peptide                         |
| <b>AUA</b>   | ..... | The American Urological Association                |
| <b>BMI</b>   | ..... | Body mass index                                    |
| <b>BNP</b>   | ..... | Brain natriuretic peptide                          |
| <b>BOO</b>   | ..... | Bladder outlet obstruction                         |
| <b>BPH</b>   | ..... | Benign prostatic hyperplasia                       |
| <b>CFS</b>   | ..... | Clinical frailty scale                             |
| <b>CHF</b>   | ..... | Congestive heart failure                           |
| <b>CKD</b>   | ..... | Chronic kidney disease                             |
| <b>CNS</b>   | ..... | Central nervous system                             |
| <b>COPD</b>  | ..... | Chronic obstructive pulmonary disease              |
| <b>CSHA</b>  | ..... | Canadian Study of Health and Aging                 |
| <b>CT</b>    | ..... | Computed Tomography                                |
| <b>DHEA</b>  | ..... | Dehydroepiandrosterone                             |
| <b>DHIC</b>  | ..... | Detrusor hyperactivity with impaired contractility |
| <b>DLB</b>   | ..... | Dementia with Lewy bodies                          |
| <b>DM</b>    | ..... | Diabetes Mellitus                                  |
| <b>EAU</b>   | ..... | European Association of Urology                    |
| <b>FI</b>    | ..... | Frailty Index                                      |
| <b>FIM</b>   | ..... | Functional independence measure                    |
| <b>GDS</b>   | ..... | Geriatric depression scale                         |

## List of Abbreviations

|                         |  |
|-------------------------|--|
| <b>HDL</b> .....        | High density lipoprotein   |
| <b>HRQOL</b> .....      | Health-related quality of life   |
| <b>IADL</b> .....       | Instrumental activities of daily living  |
| <b>ICS</b> .....        | International Continence Society   |
| <b>ICIQ-UI SF</b> ..... | International Consultation on<br>Incontinence Questionnaire-Short<br>Form              |
| <b>IIQ-7 SF</b> .....   | Incontinence Impact Questionnaire -<br>7 Short form                                    |
| <b>IL-6</b> .....       | Interleukin-6  |
| <b>IPSS</b> .....       | International Prostate Symptom<br>Score  |
| <b>LUTS</b> .....       | Lower urinary tract symptoms   |
| <b>MMSE</b> .....       | Mini-mental state examination  |
| <b>MRI</b> .....        | Magnetic resonance imaging   |
| <b>NHANES</b> .....     | National Health and Nutrition<br>Examination Survey                                    |
| <b>NICE</b> .....       | National Institute of Health and Care<br>Excellence                                    |
| <b>NSAIDs</b> .....     | Nonsteroidal anti-inflammatory drugs   |
| <b>NYHA</b> .....       | New York Heart Association   |
| <b>OAB</b> .....        | Overactive bladder   |
| <b>OSA</b> .....        | Obstructive sleep apnea  |
| <b>PRISMA-7</b> .....   | Program of Research on Integration<br>of Services for the Maintenance of<br>Autonomy-7 |
| <b>PSA</b> .....        | Prostate-specific antigen  |
| <b>PVR</b> .....        | Post-void residual   |
| <b>QOL</b> .....        | Quality Of Life  |

## List of Abbreviations

|                                     |   |
|-------------------------------------|---|
| <b>QUID</b> .....                   | Questionnaire for Urinary Incontinence<br>Diagnosis |
| <b>SUI</b> .....                    | Stress Urinary Incontinence                         |
| <b>TNF<math>\alpha</math></b> ..... | Tumour necrosis factor- $\alpha$                    |
| <b>TUGT</b> .....                   | Timed Up and Go Test                                |
| <b>TURP</b> .....                   | Transurethral resection of prostate                 |
| <b>TUE</b> .....                    | Transurethral enucleation with<br>bipolar           |
| <b>UAB</b> .....                    | Underactive bladder                                 |
| <b>UDS</b> .....                    | Urodynamic studies                                  |
| <b>UI</b> .....                     | Urinary Incontinence                                |
| <b>USA</b> .....                    | United State of America                             |
| <b>UTI</b> .....                    | Urinary tract infection(s)                          |
| <b>UUI</b> .....                    | Urge Urinary incontinence                           |
| <b>WPSI</b> .....                   | The Women's Preventive Services<br>Initiative       |

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