

# The prevalence of urinary incontinence in adult cystic fibrosis males

Gumery L, Lee J, Honeybourne D, Whitehouse J

West Midlands Regional Adult Cystic Fibrosis Centre, Heart of England NHS Trust, UK

## Background

The prevalence of urinary incontinence (UI) in adult cystic fibrosis (CF) males, has been previously reported as

- 2.4% (White et al, 2000)
- 7.8% (Gumery et al, 2001)
- 10.5% (Raftopoulos et al, 2004).

## Aims

This study investigated the prevalence, severity and impact of UI in adult CF males, following the implementation of recommendations, which aimed to improve

- awareness
- identification
- diagnosis
- and referral for treatment.

## Physiotherapy Continence Recommendations: CF Adults

- promote ongoing education and awareness of UI and its treatment to patients, physiotherapists and multidisciplinary team members
- develop/provide patient information leaflets re: UI and pelvic floor muscle exercise promotion
- question all adult CF patients sensitively and promote open dialogue re: UI at annual review/ during inpatient stay
- facilitate referral to specialist continence physiotherapy and urology services, as appropriate.

## Methods

129 adult CF males were surveyed via self-administered confidential postal questionnaire.

Eleven closed questions related to the

- cause
- severity
- impact of UI.

Clinical data collected included

- age
- CF lung disease severity (based on % predicted spirometry).

## Results

79% (102/129) males (age range 18-50 years) responded.

### UI prevalence

- reported as 16% (16/102), higher than previous research
- prevalence ↑ with age and lung disease severity (not statistically significant)
- those with severe lung disease had a potential two-fold risk of UI compared to those with mild/moderate disease (RR 2.31 95% CI (0.95-5.64) (Fishers exact 2 tailed test p value = 0.09) (not statistically significant).

### Activities most causing UI were

	When chest 'good'	When chest 'bad'
• Airway Clearance Techniques (ACT's)	14% (14/102)	15% (15/102)
• Cough	12% (12/102)	14% (14/102)
• Spirometry	12% (12/102)	14% (14/102)
• Full bladder	11% (11/102)	14% (14/102)

### UI particularly affected ability to perform

- ACT 11% (11/102)
- Spirometry 10% (10/102)

### UI occurred in

- 88% (14/16) whether chest was 'good' or 'bad'
- 12% (2/16) only when the chest was 'bad'.

### UI Severity

	When chest 'good'	When chest 'bad'
Minimal (few drops)	19% (3/16)	31% (5/16)
More severe (underwear required changing)	56% (9/16)	75% (12/16)
Severe (leakage down legs/clothes)	0% (0/16)	(0)% (0/16)

### Leakage occurrence

	When chest 'good'	When chest 'bad'
	87% (14/16)	94% (15/16)

UI distressed 81% (13/16). However, 19% (3/16) were surprisingly tolerant of symptoms and did not report distress.

Help had been sought previously by only 12% (2/16) due to

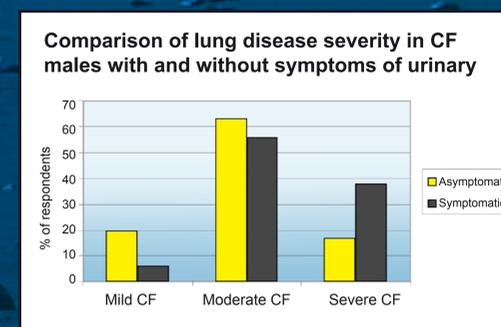
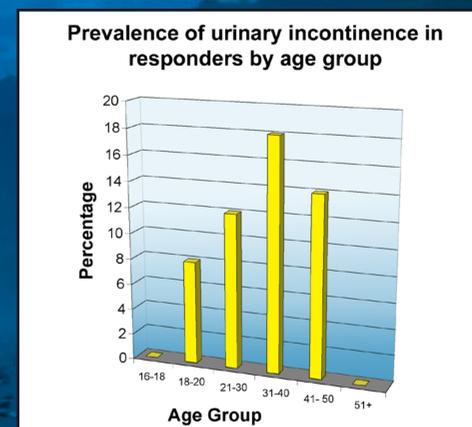
- 'embarrassment' 63% (10/16)
- 'not wishing to bother anyone' 75% (12/16).

Those who had previously received treatment 12% (2/16), found it beneficial improving, not curing symptoms.

Follow-up was now requested by a further 44% (7/16).

## Conclusion

This study identified a higher than previously reported UI prevalence of 16% in adult CF males, after the implementation of recommendations designed to heighten awareness, identification, diagnosis and referral for treatment. Encouragingly, far more men now requested follow up treatment. Prevalence increased with age and lung disease severity (not statistically significant). There appeared to be a potential two-fold risk of developing UI in those with severe disease, compared with mild/moderate disease (not statistically significant). Further study will be undertaken to assess the uptake and outcome of treatment.



**References**  
1. White D, Stiller K, Roney F (2000) The prevalence and severity of symptoms of incontinence in adult cystic fibrosis patients. *Physiotherapy Theory and Practice*, 16:35-42.  
2. Gumery L, Hodgson G, Sheldon J, Stableforth D, Honeybourne D (2001) The prevalence of urinary incontinence in the adult male population of a regional cystic fibrosis centre. *Pediatric Pulmonology*, 22: 344.  
3. Raftopoulos R, Dodd M.E, Orr A, Webb A.K, Jones A.M (2004). Urinary and Faecal Incontinence in Adults with Cystic Fibrosis, British Thoracic Society Winter Meeting, London

**Acknowledgements**  
The Adult CF Team, Bradbury Unit, Manchester, who originally inspired this work.  
All CF adults and staff, West Midlands Regional CF Centre.  
Medical Illustration, Heart of England Foundation Trust.