

**Table 4. Epidemiologic studies identifying the prevalence of urinary urgency symptoms**

Reference	Sample	Definition	Prevalence
Stewart <sup>65</sup>	Telephone survey of 5204 U.S. adults aged $\geq 18$	Urgency $>4$ times in the past 4 weeks along with either frequency $\geq 8$ times per day or the use of coping strategies	16.5% overall 16.0% men 16.9% women
Irwin <sup>66</sup>	Telephone survey of 19,165 adults aged $\geq 18$ in Canada, Germany, Italy, Sweden and the United Kingdom (UK)	“Do you experience the sudden, compelling desire to urinate which is difficult to put off? What I mean is a sudden intense feeling of urgency where you feel you must urinate immediately?”	11.8% overall 10.8% men 12.8% women
Milsom <sup>67</sup>	Survey of 16,776 adults aged $\geq 40$ in France, Germany, Italy, Spain, Sweden and the UK. Interviews were conducted by telephone, except in Spain, where direct interviews were performed.	Frequency $>8$ times during the day, or $\geq 2$ episodes of nocturia, or urgency (positive response to any of 3 defining questions) or urge incontinence (positive response to any of 4 defining questions)	16.6% overall 15.6% men 17.4% women
Coyne <sup>4</sup>	Internet survey of 30,000 adults aged $\geq 40$ (mean 56.5 in men and 56.7 in women) in the US, the UK and Sweden	“During the past 4 weeks, have you had the sudden need to rush to urinate? By sudden need to rush to urinate we mean a sudden intense feeling of urgency where you feel you must urinate immediately.” Participants were then asked how frequently the symptom occurred (never, rarely, sometimes, often, almost always). The prevalence of urgency that occurred at least ‘sometimes’ was reported.	22.4% men 35.7% women
Temml <sup>68</sup>	Direct survey of 1199 men and 1219 women attending a voluntary health screening project in Vienna	Urgency (“Do you have to rush to go to the toilet?” – occasionally, frequently or always), along with either frequency (voiding every 3 hours or more often) or nocturia (2+)	10.2% men 16.8% women
Corcos <sup>69</sup>	Computer-assisted telephone survey of 3249 adults aged $\geq 35$ (mean 52.0 in men and 50.9 in women) in Canadian metropolitan areas	Urgent need to urinate to such a point that they run the risk of involuntary urine loss, occurring at least “4 times over the past 4 weeks”, or Difficulty postponing urination at least “less than 1 time in 5” combined with bathroom seeking behavior	13.6% overall 11.7% men 15.6% women
Herschorn <sup>70</sup>	Telephone survey of 1000 adults aged $\geq 18$ in Canada	“Do you currently experience a sudden and strong need to urinate?”	15.1% overall 16.2% men 14.1% women
Perry <sup>71</sup>	Postal survey of 10,116 adults aged 40+ in Leicestershire, UK	Urgency either ‘most of the time’ or ‘overwhelming’	7.3% overall 5.4% men 8.8% women

Safarinejad <sup>72</sup>	Direct interviews of 7806 women aged 15-55 (mean 36) in Iran	Urgency (“Do you have to rush to go to the toilet?” – occasionally, frequently or always), along with either frequency (voiding every 3 hours or more often) or nocturia (2+)	18.2% women
Zhang <sup>73</sup>	Postal survey of 4684 female residents aged 20+ (mean 40.0) in Fuzhou, China	Urgency (“Do you have to rush to go to the toilet?” – occasionally, frequently or always), along with either frequency (voiding every 3 hours or more often) or nocturia (2+)	8.0% women
Teloken <sup>74</sup>	Direct survey of 848 residents of Porto Alegre, Brazil aged 15-55 (mean not reported)	“Do you experience the sudden compelling desire to pass urine, which is difficult to defer?”	18.9% overall 14.0% men 23.2% women
Choo <sup>75</sup>	Telephone survey of 2005 adults aged 40-89 (mean 59.7) in South Korea	Urgency (“Do you have to rush to go to the toilet?”), along with either frequency (8+ per 24-hour period) or nocturia (1+)	13.3% men 16.3% women
Chen <sup>76</sup>	Direct survey in a random sample of 1253 women aged 20+ (mean 43.2) who were residents of Dali, Taiwan	“Do you have to rush to get to the toilet?”	12.6% women
Yu <sup>77</sup>	Direct survey of 1827 residents of the rural community of Matsu, Taiwan (mean age 50.1, range 30-79)	Urgency (some of the time or greater) along with either frequency (some of the time or greater) or nocturia ( $\geq 2$ episodes)	16.9% overall 16.0% men 18.3% women

## References

4. Coyne KS, Sexton CC, Thompson CL, et al: The prevalence of lower urinary tract symptoms (LUTS) in the USA, the UK and Sweden: Results from the epidemiology of LUTS (EpiLUTS) study. *BJU Intl* 2009; **104**: 352.
65. Stewart WF, Van Rooyen JB, Cundiff GW, et al: Prevalence and burden of overactive bladder in the United States. *World J Urol* 2003; **20**: 327.
66. Irwin DE, Milsom I, Hunskaar S, et al: Population-based survey of urinary incontinence, overactive bladder, and other lower urinary tract symptoms in five countries: Results of the EPIC study. *Eur Urol* 2006; **50**: 1306.
67. Milsom I, Abrams P, Cardozo L, et al: How widespread are the symptoms of an overactive bladder and how are they managed? A population-based prevalence study. *BJU Intl* 2001; **87**: 760.
68. Temml C, Heidler S, Ponholzer A, et al: Prevalence of the overactive bladder syndrome by applying the International Continence Society definition. *Eur Urology* 2005; **48**: 622.
69. Corcos J and Schick E: Prevalence of overactive bladder and incontinence in Canada. *Canadian J Urol* 2004; **11**: 2278.
70. Herschorn S, Gajewski J, Schulz J, et al: A population-based study of urinary symptoms and incontinence: the Canadian urinary bladder survey. *BJU Intl* 2007; **101**: 52.
71. Perry S, Shaw C, Assassa P, et al: An epidemiological study to establish the prevalence of urinary symptoms and felt need in the community: the Leicestershire MRC incontinence study. *J Pub Health Med* 2000; **22**: 427.
72. Safarinejad M: Prevalence of the overactive bladder among Iranian women based on the International Continence Society definition: A population-based study. *Intl J Urol Nephrol* 2009; **41**: 35.
73. Zhang W, Song Y, He X, et al: Prevalence and risk factors of overactive bladder syndrome in Fuzhou Chinese women. *Neurourol Urodyn* 2006; **25**: 717.
74. Teloken C, Caraver F, Weber F, et al: Overactive bladder: Prevalence and implications in Brazil. *Eur Urol* 2006; **49**: 1087.
75. Choo MS, Ku JH, Lee JB, et al: Cross-cultural differences for adapting overactive bladder symptoms: Results of an epidemiologic survey in Korea. *World J Urol* 2007; **25**: 505.
76. Chen G, Lin T, Hu S, et al: Prevalence and correlation of urinary incontinence and overactive bladder in Taiwanese women. *Neurourol Urodyn* 2003; **22**: 109.
77. Yu H, Liu C, Lee K, et al: Overactive bladder syndrome among community-dwelling adults in Taiwan: Prevalence, correlates, perception, and treatment seeking. *Urologia Internationalis* 2006; **77**: 327.