

## PREVALENCE OF FEMALE URINARY INCONTINENCE BY AGE GROUPS IN FRENCH EPIDEMIOLOGICAL STUDIES

### Hypothesis / aims of study

Urinary incontinence (UI), or the involuntary loss of urine, is a common symptom. There is a wide variation in UI prevalence, from 5% to 69%, that can be partly explained by diverse definitions of UI. It is a storage symptom and defined as the complaint of any involuntary loss of urine (definition of International Continence Society). In epidemiological studies it can be defined by the frequency of episodes of involuntary loss of urine, for example one or more episodes in the last year or last month or leaks at least once per week or per day, as well as involuntary urinary leakage that the woman considered to be a hygienic or social problem. Age is a main risk factor for UI but little is known about its association with UI in different age groups. We hypothesized that this association varies in different age groups with constant augmentation. Aim of our study was to evaluate prevalence of female urinary incontinence in different age groups.

### Study design, materials and methods

Our available data come from cross-sectional epidemiological studies conducted in French population via mailed, Internet or telephone surveys. Our estimates of the prevalence of UI are based on general (perception-based UI rate) or specific questions (symptom-based UI rate).

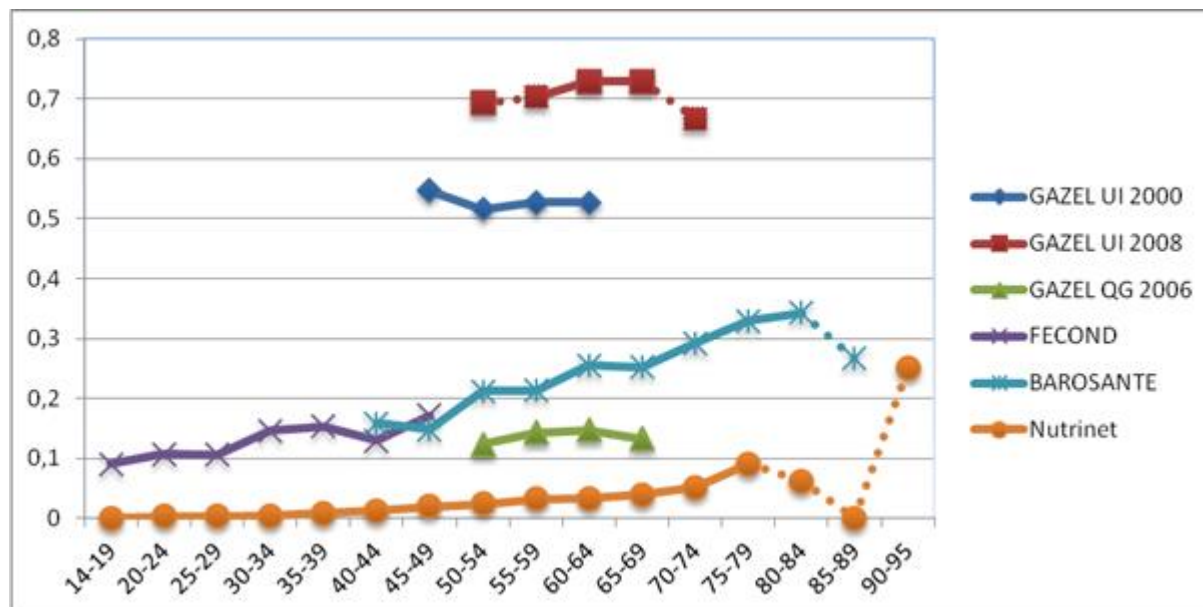
In the GAZEL annual self-administered general questionnaire (GAZEL GQ) mailed to EDG-GDF workers, since 2000 there is an item "involuntary loss of urine" in the list of 66 health problems included in the questionnaire. Women of the GAZEL cohort also filled a specific questionnaire centered on UI in 2000 and 2008, where UI was defined as involuntary urinary leakage during the previous year that the woman considered to be a hygienic or social problem. 2 telephone population-based studies, FECOND (2010, Ipsos sample) and BAROSANTE (Baromètre Santé, 2010, INPES sample) used the specific questionnaire ICIQ (International Consultation on Incontinence Questionnaire). In the NUTRINET web-based study, open to all Internet adult volunteers, which started in 2009, there is an item "urinary incontinence" in the list of 37 health problems. The samples used in these studies are different, with only 2 representative population based surveys, Fecond and Barosanté. Prevalences of UI presented in figures by 5-year age groups.

### Results

UI rates in available studies varied from 1.55% to 72%.

Study	Age	N total	UI (n)	UI (%)
GAZEL UI 2000	46-61	2616	1366	52,2
GAZEL UI 2008	54-69	3173	2280	71,8
GAZEL GQ 2006	52-67	3777	525	13,9
FECOND	15-49	5042	679	13,5
BAROSANTE	40-85	3461	794	22,94
NUTRINET	14-95	83738	1299	1,55

Prevalence of UI in all cross-sectional studies by age



### Interpretation of results

These results confirm that age is a risk factor for urinary incontinence and suggest that its association with UI varies in different age period. Symptom-based UI rates (GAZEL UI 2000, GAZEL UI 2008, FECOND and BAROSANTE) are higher than perception-based UI rates (GAZEL QG 2006 and Nutrinet).

### Concluding message

Age is a risk factor for UI but it has different association with UI in different age group. Part of variability in UI prevalence reported in our studies can be explained by different definitions of UI applied. The differences in design of the studies and characteristics of women should be also taken into account.

### Disclosures

**Funding:** Data from various French epidemiological studies **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** it uses data from various French epidemiological studies **Helsinki:** Yes **Informed Consent:** No