

The incremental cost-effectiveness ratio of the innovative pelvic floor muscle training in women with stress urinary incontinence treated by duloxetine

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Objectives

To measure the impact of the innovative pelvic floor muscle training (iPFMT) on the Quality Adjusted Life Years (QALYs) in women with stress urinary incontinence (SUI) treated by duloxetine

Methods

A part of the randomized intervention, parallel, multicentre study at urological outpatient clinics for 12 weeks

The control group – duloxetine treatment (40 mg BID) 12 weeks

The experimental group – duloxetine treatment (40 mg BID) 12 weeks and iPFMT with lumbopelvic stabilization 5 times/week for 20–30 minutes/day

Inclusion criteria

Woman > 18 years, Uncomplicated SUI, SUI > three months, ICIQ-UI-SF > 14 points, IEF per week > 7, Pelvic organ prolapse < 2

Exclusion criteria

A pregnant woman, drug treatment of SUI < 6 months, anti-incontinence surgery < 12 months, onabotulinumtoxinA for UI < 12 months, POP or urethral surgery < 12 months,

PFMT < 12 months, interstitial cystitis, constipation, renal, hepatic, heart impairment, active urinary tract infection, rehabilitation aids, antidepressant(s), participation in any clinical study < 6 months

The SUI analysis

The International Consultation on Incontinence Questionnaire - Urinary Incontinence - Short Form

(ICIQ-UI-SF score 0 – no SUI, score 21 – the most severe SUI)

The weighting factor (WF)

A linear transformation of the ICIQ-UI SF ($WF = 1 - ICIQ-UI-SF \text{ score}/21$)

The QALY gained

Calculation by multiplying the study period (SP) by a weighting factor ($QALY = SP * WF$)

The incremental cost-effectiveness ratio (ICER)

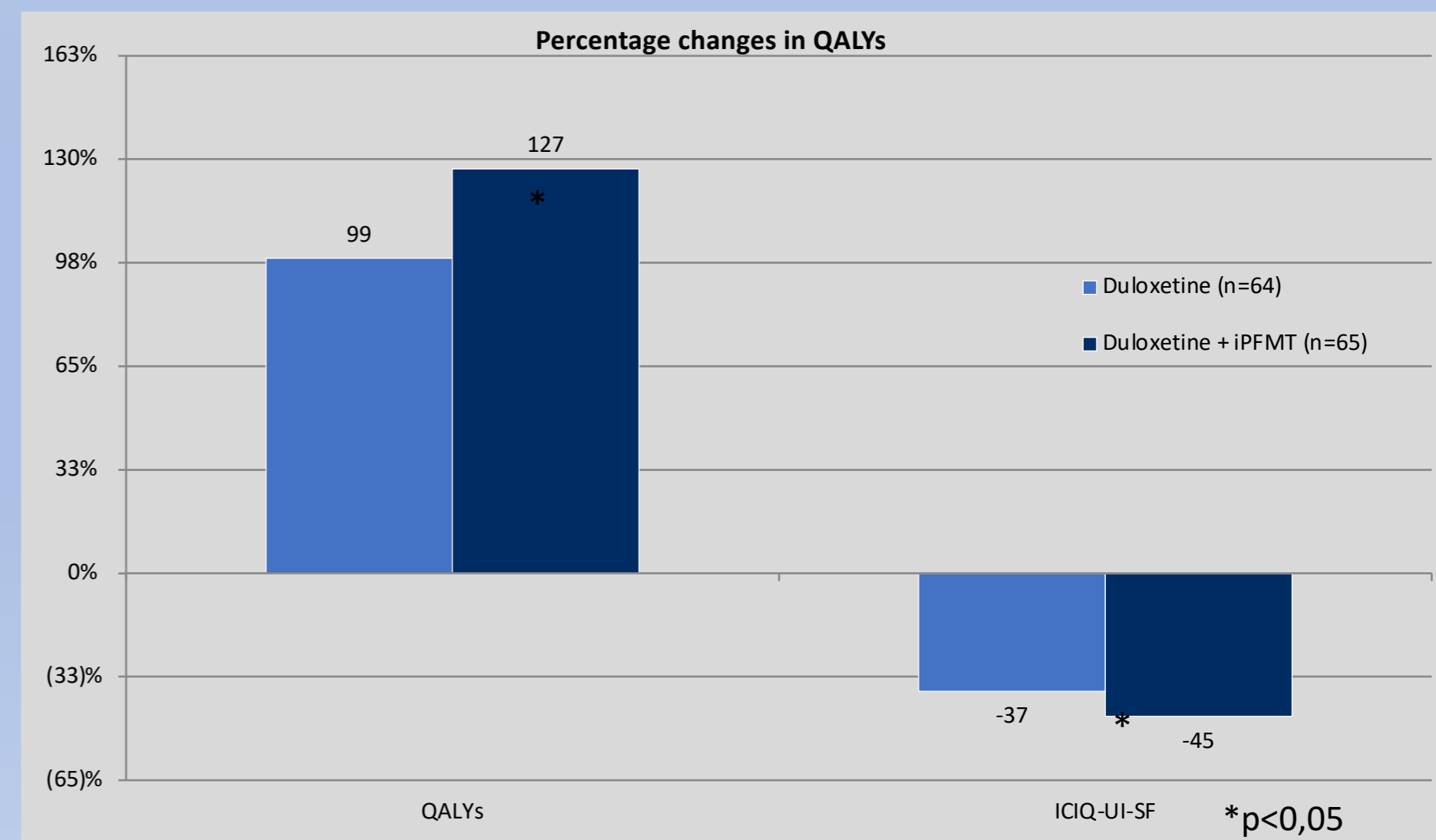
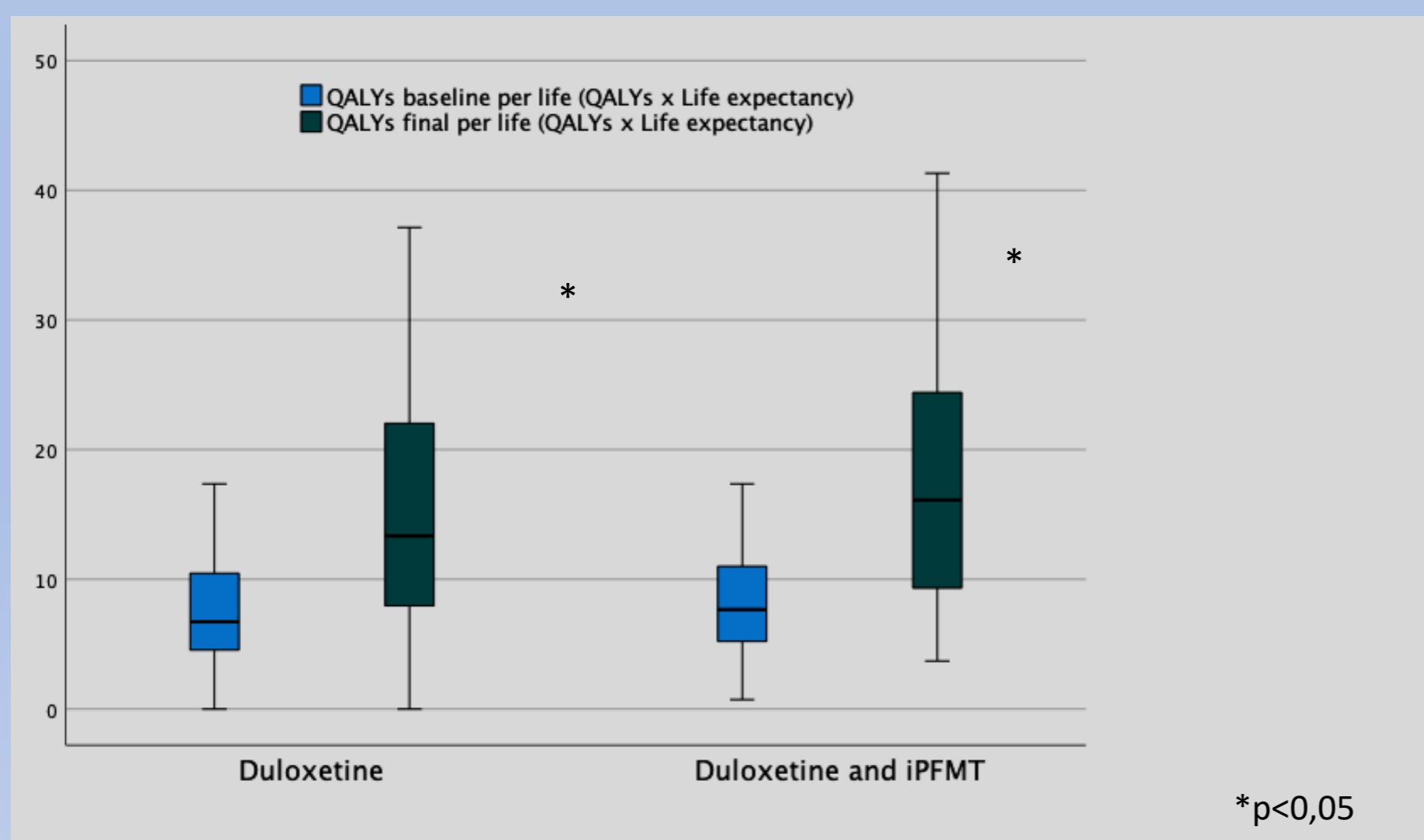
The ratio of cost differences vs QALYs differences, $ICER = (C_n - C_0) / (QALY_n - QALY_0)$

Results

The study included 129/158 women (81.6%), the control group (n = 64), experimental group (n = 65), mean age of 55.2 ± 13.0 years (range 29-80 years)

The cost of the experimental vs. control treatment reached of 381.48 vs. 94.08 EUR.

The experimental treatment had positive financial benefit because an ICER was 4105.71 EUR per one QALY gained.



Conclusion

iPFMT treatment in a population of women with SUI treated with duloxetine is a cost-effective treatment and increases the quality of life of patients.