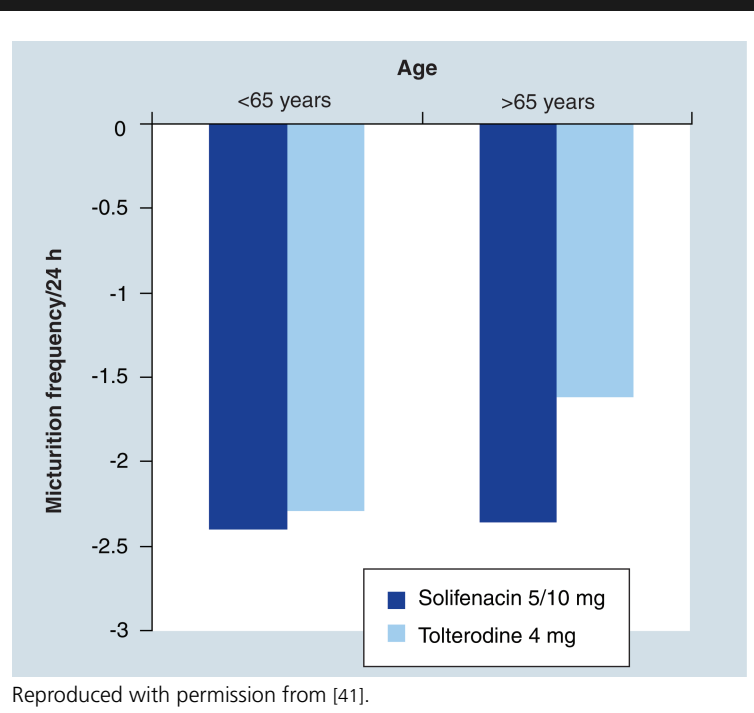


**Figure 6. Effect of solifenacin 5 and 10 mg on micturition frequency in subjects aged under and over 65 years in the STAR study.**



in Europe and is now available in the UK. The drug has been specifically tested in older people in randomized, controlled trials and it has been found to be effective in terms of objective and subjective variables and quality of life. Pooled data from the over 65-year-old population show a similar effect size to the younger groups (Figure 8) [58,59]. In older people, darifenacin does not adversely affect cognition, which may be due to its lack of M<sub>1</sub> receptor activity, and its CNS tolerability appears to be similar to placebo [60]. In addition, there is an ongoing study of darifenacin in the older old (>75 years), the only study specifically designed *a priori* to investigate the pharmacological treatment of OAB in this group. The major side effects are constipation, affecting a maximum of 23.6% of subjects at a dose of 15 mg, 10% of whom required treatment for this (although only 2.7% of subjects withdrew from treatment because of this), and dry mouth. Darifenacin has also been studied with respect to its effect on warning time – an interesting but flawed concept that examines the amount of time an individual can ‘hold on’ following urgency – however, it is difficult to show that this was what was truly measured. Darifenacin showed a significant increase in this ‘hold time’ (median increase 4.3 min) in one study [61].

### Other pharmacological measures

Although there is little evidence for estrogen therapy being of use in the treatment of incontinence in women, there are data to support the use of estrogens for the treatment of OAB in postmenopausal women. One systematic review of studies involving a total of 430 subjects found benefits in all of the relevant symptoms associated with the condition [62].

DDAVP<sup>®</sup> (synthetic ADH with no effect on blood pressure) can be useful in those individuals with nocturnal frequency or nocturnal polyuria. Its use may be hampered by drug–drug interactions predisposing to hyponatremia or excessive drinking habits [63]. More recent data have been offered in support of careful, supervised use of DDAVP in older individuals [64]. In one meta-analysis of available trial data, dilutional hyponatremia occurred in 7% of patients, all within the initial phase of dose titration [65]. Given that this fall in serum sodium may occur within 72 h, it is worthwhile checking pre- and 72 h post-initiation. Levels should be then checked again if there is any change to the disease state or treatment taken by the patient.

### Cognitive impairment

The incidence of dementia rises with age, particularly after the age of 75 years, from 7.4 out of 1000 person years at age 65–69 years to 84.9 out of 1000 person years at age 85 years and above; although there is a spectrum of disability, ranging from age-related cognitive impairment to true dementia, which affects many domains of daily living [66].

There is a known effect of medications that have anticholinergic properties on the cognitive function of older, apparently fit and well adults, and this has become an area of concern when older people require treatment of the OAB – perhaps overemphasized at times by those wishing to create a niche for their product over others [67,68]. Older people certainly take a variety of medications for many coexisting diseases. In the UK in 2004, people aged over 65 years were prescribed 57% of the 570.9 million prescription items [101]. Many medications have anticholinergic properties and thus the potential for the additive effects are high. Oxybutynin in immediate- and delayed-release forms can have an adverse effect on cognitive function and there is evidence that trospium and darifenacin do not [69]. In clinical practice however, there is little published evidence, mostly in the form of case reports, that other drugs, for example tolterodine, have a noticeable adverse