

# DOES THE ADDITION OF VAGINAL OESTROGEN TO ANTICHOLINERGIC HELP IMPROVE OUTCOME IN OVERACTIVE BLADDER SYMPTOMS?

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### Introduction

- ☐ Anticholinergics have been mainstay of OAB treatment for decades
- ☐ Research has demonstrated efficacy in urinary symptoms with vaginal oestrogen
- ☐ Vaginal estrogen cream can provide relief from discomfort associated with overactive bladder in menopausal women

#### Aim

- Evaluate the efficacy of combining vaginal estrogen with anticholinergic medication in OAB symptoms
- ☐ Investigate potential improvements in quality of life and patient well-being
- □ Determine if the addition of vaginal estrogen leads to a reduction in overactive bladder symptoms

## **Health Related Quality of Life**

	Con	nbinatio	on	Monotherapy			Std. Mean Difference		Std. Mean Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	
Chugtai 2016	-70.84	35.96	9	-79.27	16.77	9	7.4%	0.29 [-0.64, 1.22]	<del></del>	
Ellington 2016	-19.7	25.1	14	-12.8	22	30	15.8%	-0.29 [-0.93, 0.34]	<del></del>	
Jiang 2016	4.33	5.19	52	5.33	5.9	52	43.4%	-0.18 [-0.56, 0.21]	-	
Tseng 2009	6.1	2.5	40	6.5	2.7	40	33.4%	-0.15 [-0.59, 0.29]	*	
Total (95% CI)			115			131	100.0%	-0.15 [-0.41, 0.10]	•	
Heterogeneity: Tau <sup>2</sup> = Test for overall effect:				(P = 0.7	79); I² =	0%		-	-4 -2 0 2 4 Favours combination Favours monotherapy	

#### **OAB** symptoms Std. Mean Difference Combination therapy Std. Mean Difference Study or Subgroup SD Total Mean SD Total Weight IV, Random, 95% CI Year IV, Random, 95% CI 0.01 [-0.25, 0.27] 2008 Serati 2008 100 2.43 0.79 129 31.1% Tseng 2009 -0.36 [-0.80, 0.08] 2009 40 3.5 0.5 40 21.8% Chugtai 2016 9 19.6 9.1 9 8.4% 0.33 [-0.61, 1.26] 2016 Ellington 2016 14 -20.6 21.7 30 14.4% -0.47 [-1.11, 0.18] 2016 Jiang 2016 -0.58 [-0.98, -0.19] 2016 52 4.5 4.8 52 24.2% -0.26 [-0.56, 0.05] Heterogeneity: $Tau^2 = 0.06$ ; $Chi^2 = 8.61$ , df = 4 (P = 0.07); $I^2 = 54\%$

Favours combination Favours monotherapy

### **Number of micturition**

Test for overall effect: Z = 1.64 (P = 0.10)

	Combination			Monotherapy			(	Std. Mean Difference	Std. Mean Difference		
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI		
Chugtai 2016	27.38	8.34	9	28.66	13.93	9	9.1%	-0.11 [-1.03, 0.82]			
Jiang 2016	12.33	3.7	52	14	5.19	52	51.5%	-0.37 [-0.76, 0.02]	<del>-  </del>		
Tseng 2009	5.8	0.9	40	6.4	1.9	40	39.5%	-0.40 [-0.84, 0.04]	<del></del>		
Total (95% CI)			101			101	100.0%	-0.36 [-0.63, -0.08]	•		
Heterogeneity: Tau <sup>2</sup> = 0.00; Chi <sup>2</sup> = 0.32, df = 2 (P = 0.85); $I^2 = 0\%$											
Test for overall effect:	Z = 2.51	(P = 0	0.01)	-4 -2 U 2 4 Favours combination Favours monotherapy							

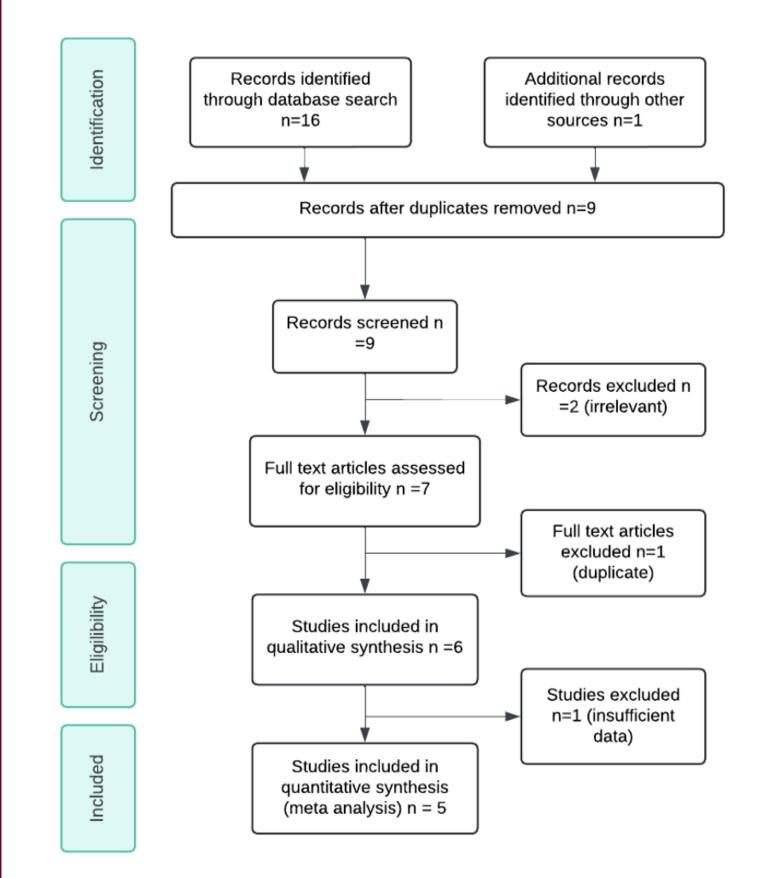


#### Results

- ☐ Search with Medline, EMBASE and CINALH
- ☐ Literature reviewed from 2009
- 2 independent reviewers
- ☐ Available data extracted for meta-analysis
- ☐ Review Manager 5.0

#### Studies included

- ☐ 6 studies were included and were of good quality
- □ 5 studies was randomized
- ☐ No. of participant varied from 23-229
- ☐ Length of follow up varied from 12 weeks to 12 months
- ☐ 3 studies used Tolterodine, 2 studies used Fesoterodine and 1 study used Solifenacin
- ☐ All studies used vaginal estrogen cream but the dosage and frequency varied between the studies



#### Conclusion

- ☐ Data comparing combination therapy and monotherapy for overactive bladder are conflicting.
- ☐ The meta-analysis revealed a positive effect in reducing frequency but did not establish significance in addressing other symptoms of overactive bladder (OAB) and health-related quality of life (HRQL).
- ☐ Additional research is necessary to assess the potential advantages of using vaginal estrogen in this context.

#### References

- 1.National Institute for Health and Care Excellence (NICE). Urinary incontinence and pelvic organ prolapse in women: management. NICE guideline 2019. https://www.nice.org.uk/guidance/ng123 [ accessed 10/9/23]
- 2. Cardozo L, Lose G, McClish D, Versi E. A systematic review of the effects of estrogens for symptoms suggestive of overactive bladder. Acta Obstet Gynecol Scand. 2004 Oct;83(10):892-7. doi: 10.1111/j.0001-6349.2004.00581.x.