

## PATIENT ATTITUDES TOWARDS DEPRESCRIBING OF ALPHA-BLOCKERS AND WILLINGNESS TO PARTICIPATE IN A DISCONTINUATION TRIAL

### Hypothesis / aims of study

Alpha-blockers are the first choice of drug treatment for male LUTS. The Dutch guideline for general practitioners (GPs) "Male LUTS" recommends to discontinue  $\alpha$ -blockers in case of symptom relief after 12-26 weeks [1]. No evidence is given to support this advice. In contrast, the Dutch guideline for urologists does not support this recommendation, whereas in the EAU guideline the discontinuation of  $\alpha$ -blockers is only considered in combination-therapy [2].

Before conducting a randomised controlled trial (RCT) to study the impact of continued versus discontinued use, it is important to study the attitude towards deprescribing of  $\alpha$ -blockers among men using this drug. Deprescribing has been defined as the process of discontinuation of an inappropriate drug, supervised by a healthcare professional [3]. We hypothesised that men with less symptoms were more often willing to consider deprescribing. Next, we analysed the proportion of participants who were willing to participate in a RCT on discontinuation and we expected that men who had positive attitudes towards deprescribing more often would be willing to participate.

### Study design, materials and methods

We conducted a survey among  $\alpha$ -blocker users. Men were selected from the IADB.nl prescription database. This database contains all dispensed prescriptions of 60 Dutch community pharmacies in the Netherlands, for a period of 20 years. We applied the following inclusion criteria: men  $\geq$  30 years of age with a first  $\alpha$ -blocker prescription in 2015 or 2016 by a GP or specialist/urologist from 10 participating pharmacies. We defined a first prescription to occur if such prescriptions were absent in the 2 preceding years, and only included men who were current  $\alpha$ -blocker user on the day of invitation.

Invitations were sent through the local pharmacies, using a patient identification number. In case of non-response a reminder was sent after two weeks. Questionnaires could be completed on paper or online at the convenience of the participant.

The questionnaire included the IPSS, and the linguistically validated Dutch version of the revised Patients Attitudes Towards Deprescribing (rPATD) questionnaire. In addition to the rPATD – which originally was developed to collect on attitudes towards deprescribing in general – 10 questions were added on attitudes towards deprescribing of  $\alpha$ -blockers: the specific rPATD (s-rPATD). Participant with less than 3 drugs were excluded of the general rPATD. We investigated six to eight factors (the overall burden, appropriateness, concerns about stopping and involvement factor, and the appropriateness of  $\alpha$ -blocker and concerns about stopping of  $\alpha$ -blocker factor). Each factor was scored between 1 and 5 and the questions of the appropriateness factors were scored reversely. Additionally, rPATD included questions about the overall satisfaction of drug use and if participants would be willing to discontinue a drug if their doctor said it was possible.

Information on a future RCT was administered, both on paper as well as in a video message. In the future RCT, continued  $\alpha$ -blocker use will be compared to placebo treatment in men who are still using an  $\alpha$ -blocker after three months. Men were consequently asked for their willingness to participate in such a study when invited.

We categorised IPSS score as mild (1-7 points), moderate (8-19), and severe (20-35). Using Spearman's rho, we analysed the correlations between the attitudes towards deprescribing (the rPATD and s-rPATD factors) and patient characteristics and severity of LUTS. In addition we analysed the correlation between those with the willingness to participate in the RCT. We also used multivariable logistic regression to identify predictors of willingness to participate.

### Results

In the IADB database, we identified 592 patients, of whom 188 were still using  $\alpha$ -blockers on the day of invitation. Eighty-nine men (47.3%) completed the questionnaire. Due to incomplete responses or exclusions (prescription by another specialist than urologist or GP or with another indication such as kidney stones and urinary catheter), 78 men constitute the basis for this analyse. Mean age of the participants was 69 years (SD 8.96). The median number of self-reported drugs was 5.0 (IQR 4.03-5.70); 37% had more than five prescribed drugs. Comorbidity was reported by 16.9% (COPD), 14.3% (Diabetes mellitus), 13.0% (Cardiovascular diseases), 5.2% (prostate cancer). Previous surgery to bladder or prostate was reported by, respectively 3.9% and 2.6%. The median IPSS score was 14.0 (IQR 13.32-16.41) and 17.3% of the participants had mild symptoms, 50.7% moderate and 32.0% severe. The median IPSS QoL score was 3.0 (IQR 2.64-3.31).

Table 1. Patients' attitudes towards deprescribing (score 1 – 5)

		<i>n</i>	Median score (IQR)
rPATD factor	Burden	57	2.8 (2.60-2.95)
	Appropriateness*		3.4 (3.17-3.52)
	Concerns about stopping		4.0 (3.89-4.14)
	Involvement		2.5 (2.42-2.75)
	Global question A		4.0 (3.68-4.08)
	Global question B		4.0 (3.83-4.28)
Specific factor	rPATD Appropriateness*	77	3.2 (3.18-3.47)
	Concerns about stopping		2.6 (2.50-2.80)

\* Reversed scores; A Overall, I am satisfied with my current medicines; B If my doctor said it was possible I would be willing to stop one or more of my regular medicines

Table 1 presents scores on rPATD and s-rPATD. Of all men, 60.3% were willing to participate in a future study comparing continued  $\alpha$ -blocker use with discontinuation.

Table 2. **Correlations between variables and attitudes towards deprescribing**

Spearman correlation coefficients (p-values).		Age		Number of drugs		IPSS		IPSS QoL	
rPATD factor	Burden	-.06	(.68)	<b>.35</b>	(.01)	.21	(.13)	<b>.34</b>	(.01)
	Appropriateness	.03	(.86)	-.15	(.29)	.01	(.94)	-.20	(.14)
	Concerns about stopping	.08	(.55)	.02	(.89)	.06	(.69)	-.04	(.74)
	Involvement	-.10	(.47)	.19	(.18)	.05	(.71)	.14	(.30)
	Global question A	.08	(.54)	.23	(.09)	-.17	(.23)	<b>-.29</b>	(.03)
	Global question B	-.04	(.80)	.18	(.21)	-.01	(.95)	.08	(.55)
s-rPATD factor	Appropriateness	.19	(.31)	-.02	(.89)	-.11	(.35)	<b>-.25</b>	(.03)
	Concerns about stopping	-.06	(.61)	-.06	(.59)	.01	(.90)	.01	(.94)

Table 3. **Predictors of willingness to participate in a RCT on discontinuation**

	OR	p
Age		.91
40-50 (reference)		
51-60	1.00	
61-70	1.58	
71-80	1.83	
>80	2.00	
IPSS total	1.02	.55
IPSS category		.57
Mild (reference)		
Moderate	1.12	
Severe	1.03	
IPSS QoL	1.12	.48
rPATD factor		
Burden	1.31	.54
Appropriateness	0.46	.09
Concerns about stopping	0.92	.85
Involvement	1.72	.37
s-rPATD factor		
Appropriateness	<b>0.31</b>	.01
Concerns about stopping	0.59	.17

#### Interpretation of results

Lower LUTS-related QoL and higher number of drugs were associated with increased burden of treatment. Further, lower QoL coincided with less global satisfaction about current drugs, and lower scores on  $\alpha$ -blocker specific appropriateness scores (Table 2).

Willingness to participate in a RCT on discontinuation was reported by 60% of participant and did not depend on age, number of drugs used, LUTS severity or QoL. Willingness was higher for participants who thought their  $\alpha$ -blockers may be inappropriate (e.g. thinking of giving side effects, may not be working or would like to stop it) (Table 3).

#### Concluding message

This preliminary study is the first on patient attitudes towards deprescribing in men who use  $\alpha$ -blockers. Men with worse LUTS-QoL scores less often considered the use of  $\alpha$ -blockers as appropriate.

About two-thirds of  $\alpha$ -blocker users would participate in a RCT on discontinuation and this willingness is higher when the patient thinks the  $\alpha$ -blocker is inappropriate. There was no significant relationship between LUTS severity and the attitudes towards deprescribing or the willingness to participate.

Patient attitudes towards deprescribing are important for further research on optimizing drug use.

#### References

1. Blanker MH, et al. Summary of the NHG practice guideline 'Lower urinary tract symptoms in men'. Ned Tijdschr Geneesk. 2013;157(18):A6178.
2. Gratzke C, et al. EAU Guidelines on the Assessment of Non-neurogenic Male Lower Urinary Tract Symptoms including Benign Prostatic Obstruction. Eur Urol 2015;67(6):1099-1109
3. Reeve E, et al. A systematic review of the emerging definition of 'deprescribing' with network analysis: implications for future research and clinical practice. Br J Clin Pharmacol 2015;80(6):1254-1268

#### Disclosures

**Funding:** None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** University Medical Center Groningen, University Medical Center Groningen (confirmation of ethics committee that no approval was needed under Dutch law). **Helsinki:** Yes **Informed Consent:** Yes