



## Information for GPs on Managing Urinary Problems and UTIs in Multiple System Atrophy

People with Multiple System Atrophy (MSA) generally experience urinary problems that may affect the ability to store urine normally or empty the bladder effectively. Symptoms often predate neurological signs of parkinsonism and cerebellar ataxia.

### Assessment

The initial assessment of lower urinary tract symptoms should include a dipstick test to rule out a urinary tract infection (UTI) and a bladder scan to assess post micturition residual volume.

Bladder diaries (which should ideally be completed for three days) are a helpful diagnostic tool for the initial assessment as they provide information on fluid intake, number of voids, voided volumes and episodes of incontinence.

Other urological or gynaecological causes for lower urinary tract symptoms such as prostate enlargement should be appropriately ruled out.

### Management of urinary symptoms

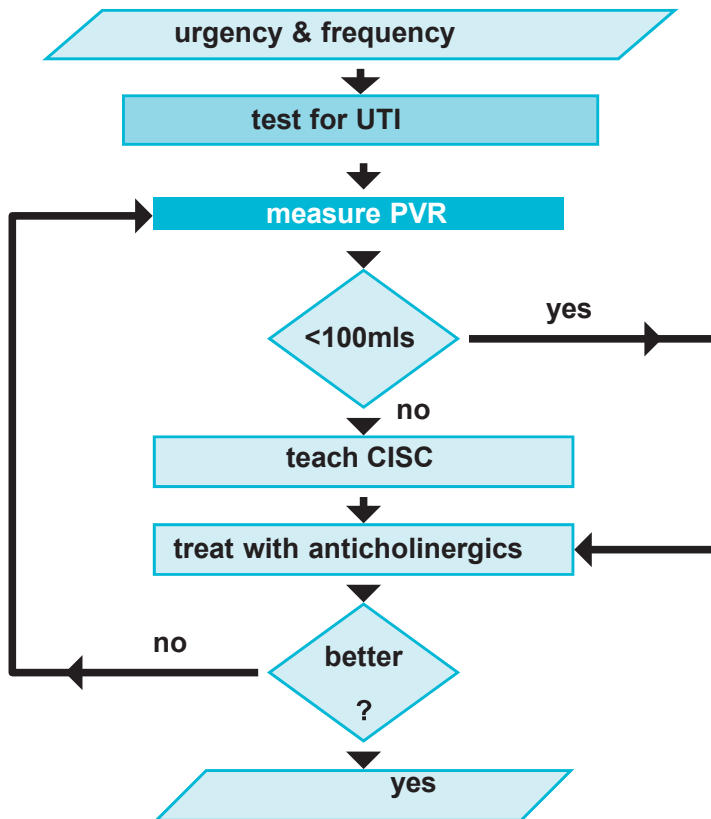
- Practical advice should be given about cutting down caffeine, fizzy drinks and alcohol
- Information about timed voiding and bladder retraining whenever appropriate
- The fluid intake should be individualized, particularly taking into consideration possible concurrent cardiac issues. However, a fluid intake of between 1 to 2 litres a day is generally advised
- Catheterization is indicated in individuals with persistently elevated post-void residual volumes in excess of 100-150 ml. Clean intermittent self-catheterisation (CISC) would be the preferable option; this should be taught by a continence specialist nurse. Manual dexterity and the ability to balance when sitting are some of the things that would need to be assessed when considering CISC. With advancing disease, a long-term indwelling catheter may be required, preferably suprapubic rather than urethral
- If patients present with overactive bladder symptoms (frequency, urgency, incontinence) an antimuscarinic medication can be considered, if the person is not retaining urine in their bladder after passing urine. Possible side-effects might be dry mouth and constipation. If the former is too uncomfortable, artificial saliva may be prescribed.

Alternatively, a beta-3 receptor agonist (i.e. mirabegron), could be considered. Mirabegron is generally used at the dose of 50 mg daily; dose adjustments might be required in case of renal or hepatic impairment.

Possible side effects may be hypertension, arrhythmias, headache and gastrointestinal disturbance and the medication is contraindicated in case of severely uncontrolled hypertension.

Referral to specialist urology services would be indicated in cases of haematuria, suspicion of a concomitant urological condition, e.g. prostate enlargement, recurrent urinary tract infections, symptoms refractory to medical management or for consideration of suprapubic catheterisation.

The following is an algorithm for the management of lower urinary tract symptoms:



## Management of UTIs

People with MSA who have a UTI may:

- Experience sudden deterioration in core MSA symptoms – e.g. mobility, speech, swallow
- Be prone to uncharacteristic episodes of disorientation +/- hallucinations (not normally part of MSA).

However, people with MSA may **not** display typical symptoms of a UTI due to the underlying neurological condition e.g.:

- May not show signs of a fever
- May not experience discomfort on passing urine
- May not have low back pain

Abnormalities on urine dipstick testing may be indicative of infection, however a urine sample should be sent for culture and sensitivity when a UTI is suspected.

If dipstick is negative in a patient who is symptomatic, we would recommend to still send a urine culture to rule out a UTI as a possible cause of deterioration in their condition.

#### People with MSA who have a urine infection need:

- Prompt treatment with antibiotics
- Urine sent for culture – treatment changed if required on receipt of culture results

#### People with MSA who have recurrent urine infections:

- Arrange a bladder scan to check post void residual volume (PVR)
- PVR over 100-150 ml - consider catheterization (CISC / urethral catheterisation/referral for suprapubic catheterisation)
- Further investigating a urological cause (e.g. bladder stones) - ultrasound scan of the kidney and urinary bladder and consider a Urology referral
- Other possible sources of infection should be considered and bowel habits reviewed
- If performing CISC, catheterisation technique should be assessed and optimised if necessary
- May need higher dose of antibiotics for a longer period if they experience recurrent UTIs
- Try cranberry extract tablets or D-Mannose daily
- Try prophylactic methenamine Hippurate (Hiprex) with ascorbic acid

Current literature does not support the routine long-term use of low dose antibiotic prophylaxis due to the lack of efficacy and increase in antimicrobial resistance. If antibiotic prophylaxis is however required under special circumstances, we would suggest choosing three different prophylactic antibiotics according to the results of the urine cultures and to rotate between these antibiotics every six weeks.

You may consider consulting with the local Clinical Microbiology service to discuss prophylactic antibiotics if appropriate.

#### Disclaimer:

This factsheet is intended for qualified professionals. The information provided is for guidance purposes only and should be used alongside other relevant research, professional standards and individual clinical or professional judgement. Circumstances for people affected by MSA vary greatly, and professionals should not rely on this material alone when providing support to people.

The resource is produced independently, is not influenced by sponsors and is free from endorsement. References for this information sheet are available by contacting [#support@msatrust.org.uk](mailto:support@msatrust.org.uk)

Your feedback helps us ensure we are delivering information to the highest standard. If you have any comments or suggestions, please contact us at [support@msatrust.org.uk](mailto:support@msatrust.org.uk).

## The MSA Trust's Contact Details:

The MSA Trust offers information and support to people living with a diagnosis of MSA, their families and carers, and to healthcare professionals.

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REVISION DATE: 05/26 | REVIEW DATE: 05/29 | VERSION: 1.1

Our thanks to the Department of Uro-Neurology at The National Hospital for Neurology and Neurosurgery, for their support in creating this resource.



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