

**South East London Integrated Medicines Optimisation Committee
Formulary recommendation**

Reference	032
Intervention:	Midodrine (2.5mg and 5mg tablets) for the treatment of Postural Orthostatic Tachycardia Syndrome (POTS)/Inappropriate Sinus Tachycardia (IST) (Midodrine is a vasopressor/antihypotensive agent).
Date of Decision	May 2015, November 2017 – re-categorisation from red to amber 3. July 2025: updated to reflect development of local POTS guidance
Date of Issue:	June 2015, January 2018, October 2025
Recommendation:	AMBER 3 – initiation and first 3 months supplied by the specialist cardiology clinic
Further Information	<ul style="list-style-type: none"> • Postural Orthostatic Tachycardia Syndrome (POTS) is an abnormal increase in heart rate on becoming upright due to an abnormality of functioning of the autonomic (involuntary) nervous system. • Inappropriate Sinus Tachycardia (IST) is a condition in which an individual's resting heart rate is abnormally high – greater than 100 beats per minute or rapidly accelerates to over 100 beats per minute without an identifiable cause; although small amounts of exercise, emotional or physical stress are triggering factors. • Midodrine is accepted for use in the treatment of POTS and IST and must be initiated by the specialist cardiology clinic at either KCHfT or GSTfT. • Midodrine should be prescribed in accordance with local treatment guidance for the management of POTS. • In line with the transfer of prescribing responsibility guidance, the specialist clinic will supply and titrate treatment over the first 3 months. Specific details on consultant and GP responsibilities can be found in the transfer of prescribing responsibility guidance. • Midodrine is not licensed* for the treatment of POTS or IST. As the use of midodrine in this setting is off-label, the off-label nature should be explained to the patient/carer and informed consent gained. • Midodrine may be considered for POTS where: <ul style="list-style-type: none"> ○ the predominant presenting symptom is hypotension AND ○ the patient has failed simple measures such as increased fluids, exercise and compression clothing AND ○ Fludrocortisone/propranolol/pyridostigmine is considered inappropriate for the patient or has failed to control symptoms • Midodrine may be considered for IST where: <ul style="list-style-type: none"> ○ the predominant presenting symptom is hypotension AND ○ the patient has failed simple measures such as increased fluids, exercise and compression clothing AND ○ Fludrocortisone is considered inappropriate for the patient or has failed to control symptoms • Prior to treatment with midodrine the sub-type of POTS should be determined to avoid possible treatment failure in hyperadrenergic POTS. • The dose of midodrine should be started at 2.5mg three times a day and should be up-titrated to a maximum 10mg three times a day as tolerated. • In some cases where tachycardia is also present as part of the condition's symptomology, midodrine may be co-prescribed with ivabradine (see IMOC Recommendation 033). • SEL wide guidance and a transfer of prescribing process have been developed to support implementation of this recommendation for the management of POTS. • The management of orthostatic hypotension with midodrine is not covered by this formulary recommendation. See the SEL adult joint medicines formulary for information on dosing.

Shared Care/ Transfer of care required:	Yes, guidance and transfer of prescribing process to be followed.
Cost Impact for agreed patient group	<ul style="list-style-type: none"> It is estimated that there will be approximately 50 patients eligible for treatment with midodrine per year in SEL. If it is assumed that treatment is at maximum dose (10mg three times a day) and a cost of £1643 per patient per year (exc. VAT), this will have a total cost implication of around £82,000 per year (exc. VAT).
Usage Monitoring & Impact Assessment	<p>Acute Trusts:</p> <ul style="list-style-type: none"> Monitor and audit usage and outcomes from use of midodrine in this setting (against this recommendation) and report back to the Committee if requested. <p>SEL Borough Medicines Optimisation Teams:</p> <ul style="list-style-type: none"> Monitor ePACT2 data and exception reports from GPs if inappropriate prescribing requests are made to primary care.
Evidence reviewed	<p>References (from evidence evaluation)</p> <ol style="list-style-type: none"> http://www.stars.org.uk/patient-info/conditions/pots accessed on 16.12.14 http://www.potsuk.org/medication_overview accessed on 16.12.14 A double-blind placebo-controlled cross-over study of the vascular effects of midodrine in neuropathic compared with hyperadrenergic postural tachycardia syndrome. Clinical Science, February 2014, vol./is. 126/4(289-96), (2014 Feb) Ross AJ; Ocon AJ; Medow MS; Stewart JM Therapies for postural tachycardia syndrome in children Zhonghua er ke za zhi. Chinese journal of pediatrics, June 2011, vol./is. 49/6(428-432), (Jun 2011) Zhang FW.; Liao Y.; Li XY; Chen L.; Jin HF.; DU J.B. Language: Effect of selective alpha1 receptor agonist in the treatment of children with postural orthostatic tachycardia syndrome, Zhonghua er ke za zhi. Chinese journal of pediatrics, September 2008, vol./is. 46/9(688-691), (Sep 2008) Chen L.; DU J.B.; Jin H.F.; Zhang QY; Li WZ; Wang L; Wang YL. Midodrine hydrochloride is effective in the treatment of children with postural orthostatic tachycardia syndrome. Circulation Journal, April 2011, vol./is. 75/4(927-931), 1346-9843;1347-4820 (April 2011) Chen L; Wang L; Sun J; Qin J; Tang C; Jin H; Du J. Outcomes in adolescents with postural orthostatic tachycardia syndrome treated with midodrine and beta-blockers PACE - Pacing and Clinical Electrophysiology, February 2009, vol./is. 32/2(234-238), (February 2009) Lai CC.; Fischer PR.; Brands CK.; Fisher JL.; Porter C.-BJ.; Driscoll SW.; Graner KK. Jacob G, Shannon JR, Black B, Biaggioni I, Mosqueda-Garcia R, Robertson RM et al.Effects of volume loading and pressor agents in idiopathic orthostatic tachycardia.Circulation 1997;96:575-80 Summary of Product Characteristics (SPC) for Midon (midodrine) 2.5mg tablets in the Ireland produced by Takeda (Ireland) accessed on 16.12.14 Postural hypotension in adults: midodrine, NICE advice [ESUOM5] Published date: February 2013 accessed on 16.12.14 Cost of midodrine tablets via Ascribe Live V10.10 accessed on 16.12.14 http://www.heartrhythmcharity.org.uk/www/79/0/Inappropriate_sinus_tachycardia/ accessed on 16.12.14

NOTES:

- SEL IMOC recommendations and minutes are available publicly via the [website](#)
- This SEL IMOC recommendation has been made on the cost effectiveness, patient outcome and safety data available at the time. The recommendation will be subject to review if new data becomes available, costs are higher than expected or new NICE guidelines or technology appraisals are issued.
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