Healthier Together
Improving health and care in Bristol, North Somerset and South Gloucestershire

BNSSG Shared Care Guidance
Please complete all sections

Section 1: Heading

Drug	Verapamil immediate release tablets
Amber *three months*	
Indication	**Cluster Headache (off label) for patients under 75 years old and without a history of hypertension.** Note: Verapamil immediate release tablets for cluster headache is TLS Red for patients aged 75 and over and for those with a history of hypertension as this cohort of patients is considered higher risk requiring additional ECG monitoring.

Section 2: Treatment Schedule

Usual dose and frequency of administration *(Please indicate if this is licensed or unlicensed and any relevant dosing information)*

Initially 80mg TDS, titrating to max 320mg TDS using the below titration guide:

Recommended verapamil titration regimen
(How to do it: Managing Cluster Headache: Wei, Khalil and Goadsby, Practical Neurology)

	Morning	Midday	Evening
Increase dose no more frequently than every 2 weeks	80mg	80mg	80mg
	80mg	80mg	160mg
	80mg	160mg	160mg
	160mg	160mg	160mg
	160mg	160mg	240mg
	160mg	240mg	240mg
	240mg	240mg	240mg
	240mg	240mg	320mg
	240mg	320mg	320mg
	320mg	320mg	320mg

Increase if symptoms are not resolved at previous dose.

Restart at the beginning of subsequent clusters using the effective dose used on the last occasion, not at the start of the titration schedule.

Route and formulation	Orally using immediate release tablets, must **not** be a modified or sustained-release preparation
Duration of treatment	**Until cluster ends** **Stopping:** Dose should be reduced slowly once cluster ends For example: reduce by half every 48 hours.

	Restarting: Restart at the beginning of subsequent clusters using the effective dose used on last occasion, not at the start of the titration schedule. Note: subsequent courses may be initiated in primary care to allow patients to access adequate relief quicker unless there is a change in the patient's clinical history.

Section 3: Monitoring

Please give details of any tests that are required before or during treatment, including frequency, responsibilities (please state whether they will be undertaken in primary or secondary care), cause for adjustment and when it is required to refer back to the specialist.

Baseline tests - where appropriate

ECG to be performed prior to starting treatment to exclude ANY heart block or history of heart failure

Review of medications to ensure no interactions that contraindicate use (See below and BNF). No need to ECG on subsequent episodes unless change in clinical history.

Subsequent tests - where appropriate *(Please indicate who takes responsibility for taking bloods and interpreting results)*

Test	Frequency	Who by	Action/management
ECG	At baseline for those without a cardiac history or known structural abnormality.	Secondary care	Review for bradycardia <50 bpm and heart block. If normal can continue titrate. If abnormal discuss with neurology
NT-proBNP	At baseline	Secondary care	Discuss with cardiology if any signs of heart failure

Section 4: Side Effects

Please list only the most pertinent side effects and management. Please provide guidance on when the GP should refer back to the specialist. For everything else, please see BNF or SPC.

Side effects and management

Side effect	Frequency/severity	Action/management
Constipation	Common	Non-medical measures, then laxatives. Reduce dose if necessary
Swollen ankles	20-30%	Assess for signs of CCF, stop if present
Hypotension	30%	Reduce dose. Inform neurology
1st degree heart block	Up to 40%	Discuss with neurology, may be

	<table><tr><td></td><td></td><td>able to stay on treatment</td></tr><tr><td>2nd degree heart block</td><td>10%</td><td>Stop drug, if symptomatic (light headed, blackouts other cardiac symptoms) admit for cardiac monitoring</td></tr></table>
Referral back to specialist	If cluster not aborted on maximum / maximum tolerated dose after 6 weeks. Note this applies to subsequent courses of Verapamil, as patients on first courses will still be under secondary care at 6 weeks.

Section 5: Other Issues

(e.g. Drug Interactions, Contra-indications, Cautions, Special Recommendations)

Please list only the most pertinent action for GP to take (For full list please see BNF or SPC)

Issues	**Drug Interactions** **Potentially serious interactions with the following drug groups, refer to BNF for further information on interaction** Anti-arrhythmics (concomitant use with ivabradine is contraindicated, see below). Beta blockers Drugs metabolised by CYP3A4 and P-glycoprotein Sodium channel active anticonvulsants Statins Direct oral anticoagulants Macrolide antibiotics Lithium Benzodiazepines **This is not a comprehensive list of interactions. Refer to the BNF for a full list of potential drug interactions.** **Contra-indications** • Hypersensitivity to the active substance or to any of the excipients • Hypotension (of less than 90mmHg systolic) • Second or third degree atrioventricular block; sick sinus syndrome (except in patients with a functioning artificial pacemaker); uncompensated heart failure; marked bradycardia (less than 50 beats/minute). • Combination with beta-blockers is contraindicated in patients with poor ventricular function. • Wolff-Parkinson-White syndrome. • Concomitant ingestion of grapefruit juice is contraindicated. • Acute myocardial infarction complicated by bradycardia, marked hypotension or left ventricular failure. • Combination with ivabradine due to the additional heart rate lowering effect of verapamil to ivabradine **Special Recommendations** ***Liver disease*** Manufacturers advise caution in patients with hepatic impairment (risk of increased exposure). ***Pregnancy and breastfeeding*** If patient becomes pregnant, refer back to secondary care. Verapamil should not be given during the first trimester of pregnancy unless, in the clinicians judgement, it is essential for the welfare of the patient.

Reminder to ask patient about specific problems	Syncope and falls – indicates possible postural hypotension which may necessitate verapamil review. Refer back to specialist if confirmed. New heart problems – Recent myocardial infarction, bradycardia, LV failure, heart block, heart failure (especially NYHA class 3 and 4) all necessitate verapamil review. Refer back to specialist.

Section 6: Advice to the patient

Advice for prescribing clinician to inform patient

1. DO NOT increase dose unless you have been told it is ok to do so
2. Report side effects including dizziness, shortness of breath and palpitations to your GP
3. Make sure that you reduce the dose slowly once your cluster is over. For example: reduce by half every 48 hours

Section 7: Generic principles of shared care for SECONDARY CARE

Please do not amend.

Core responsibilities

1. Initiating treatment and prescribing for the length of time specified in **section 1.**
2. Undertaking the clinical assessment and monitoring for the length of time specified in **section 1** and thereafter undertaking any ongoing monitoring as detailed in **section 3.**
3. Communicate details of the above in 1 and 2 to GP within the first month of treatment. This information should be transferred in a timely manner.
4. Refer patients to GP and provide information of further action where appropriate e.g. if blood test is due.
5. To provide advice to primary care when appropriate.
6. Review concurrent medications for potential interaction prior to initiation of drug specified in **section 1.**
7. Stopping treatment where appropriate or providing advice on when to stop.
8. Reporting adverse events to the MHRA.
9. Reminder to ask patients about particular problems see **section 5.**

Section 8: Generic principles of shared care for PRIMARY CARE

Please do not amend.

Core responsibilities

1. Responsible for taking over prescribing after the length of time specified in **section 1.**
2. Responsible for any clinical assessment and monitoring if detailed in **section 3** after the length of time specified in **section 1.**
3. Review of any new concurrent medications for potential interactions.
4. Reporting adverse events to the MHRA.
5. Refer for advice to specialist where appropriate.
6. Reminder to ask patients about particular problems see **section 5.**

Section 9: Contact Details

Name	Organisation	Telephone Number	E mail address
Dr Mark Cossburn	Consultant Neurologist, North Bristol NHS trust	0117 4146683	Mark.cossburn@nbt.nhs.uk

Section 10: Document Details

Date prepared	28/04/2022
Prepared by	Nixon Leung, Specialist Neurosciences Pharmacist, NBT Kimberly Jefferson, Formulary Pharmacist, NBT Karon Arnold, Interface Pharmacist, BNSSG ICB
Date approved by JFG	31/01/2023
Date of review	01/02/2025
Document Identification: Version	V7

Section 11: Collaboration

All shared care protocols should be BNSSG wide where possible. Specialists in any one discipline are encouraged to collaborate across the health community in preparing shared care guidance. Please give details

1. Single Neurology service across BNSSG
2. Collaboration with cardiology service at NBT regarding need for ECGs

Section 12: References

Please list references

How to do it: Managing Cluster Headache: Wei, Khalil and Goadsby Practical Neurology How to do it Managing cluster headache https://pn.bmj.com/content/19/6/521

NICE CG 150: The management of primary headache disorders

American Headache Society Guidelines 2016

BASH: National Headache Management System for Adults 2019

European Federation on Neurological Societies guidelines on the treatment of cluster headache and other trigeminal-autonomic cephalagias 2006

Leone. Verapamil in the prophylaxis of episodic cluster headache: a double-blind study versus placebo. 2000

Petersen A. Verapamil and Cluster Headache: Still a Mystery. A Narrative. 2019

Steinbery A. Cluster Headache: Prevalence, sickness absence, and disability pension in working ages in Sweden