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

Adult treatment pathway for potassium binders for persistent hyperkalaemia for patients with chronic kidney disease (stages 3b-5) or heart failure based on NICE TA599 & TA623

TLS AMBER – SPECIALIST INITIATED*

Prescribing criteria for patiromer and sodium zirconium cyclosilicate (potassium binders)

Potassium binders may be considered for initiation in hospital by a specialist in adult patients with persistent hyperkalaemia in line with NICE TA599 and TA623**.**

**Emergency treatment of hyperkalaemia (i.e. potassium ≥ 6.5 mmol/L) is TLS RED and should be prescribed by secondary care to achieve normokalaemia*

Transfer of care after stabilisation of RAASi and potassium binder by specialist

GPs may be asked to take over prescribing and monitoring responsibility once patient is stabilised on:

- **RAASi (renin-angiotensin system inhibitors) and**
- **Potassium binder**
- **No dose changes anticipated within the next 4-6 weeks**
- **Potassium is ≤ 5.3mmol/L**

Specialist responsibilities:

- Communicate dose and confirm ongoing monitoring requirements to primary care.
- Prescribe a further 4 weeks supply.
- Ensure patient is counselled on how to take sachets, storage, potential side effects and advise that long term use has not been studied for more than a year.
- Provide ongoing advice to primary care where needed.

Ongoing management and monitoring of potassium binders in Primary Care

- Primary care to adjust RAASi dose as required to manage underlying condition e.g. CKD/HF.
    1. Monitor U&Es and blood pressure 2 weeks after each RAASi dose change.
    2. Adjust potassium binder dose according to serum potassium results if required – see table below.
    3. Recheck U+Es within 2 weeks of each change in potassium binder dose.
    4. Check serum magnesium 1 month after each dose change of patiromer. If hypomagnesemia develops, treat according to local guidance, see oral magnesium supplementation guideline. Seek advice from secondary care about long term management, including consideration of switching patiromer to sodium zirconium cyclosilicate in order to maintain RAASi therapy.
    5. Repeat steps 3-5 as necessary
    6. Once patients are on a stable dose of RAASi to manage the underlying condition and potassium binder to maintain a stable serum potassium level, monitor U+Es monthly for three months. For patients on patiromer check magnesium alongside U+Es.
    7. Then return to the patient's usual monitoring schedule for RAASi / underlying condition.
- Reduce the dose of RAASi in persistent hyperkalaemia despite optimal doses of potassium binder.

Sara Perkins, Senior specialist pharmacist – renal & transplant and Dr Albert Power, Consultant nephrologist. North Bristol NHS Trust. Adapted from Hertfordshire and West Essex potassium binder pathway. Version 1.1, Approved BNSSG APMOC April 24 (minor update May 24) Review April 2027.

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

Primary care guide to potassium binder dose adjustment following out of reference range serum potassium result during maintenance treatment

Potassium binder	Sodium zirconium cyclosilicate			Patiromer			
Current dose	**5g Alt days**	**5g OD**	**10g OD**	**8.4g Alt days**	**8.4g OD**	**16.8g OD**	**25.2g OD**
Serum potassium (mmol/L)	**Recommended dose adjustment according to serum potassium result**						
3.0 – 3.4	Discontinue	Reduce to 5g Alt days	Reduce to 5g OD	Discontinue	Reduce to 8.4g Alt days	Reduce to 8.4g OD	Reduce to 16.8g OD
3.5-5.0	No change	No change	No change	No change	No change	No change	No change
5.1-6.5	Increase to 5g OD	Increase to 10g OD	Refer back to specialist	Increase to 8.4g OD	Increase to 16.8g OD	Increase to 25.2g OD	Refer back to specialist
>6.5	**Urgent referral to specialist for emergency treatment of acute hyperkalaemia***						

Discontinuing potassium binder

- Discontinue if the patient develops a hypersensitivity reaction.
- Patients should be instructed **not** to discontinue therapy without consulting their healthcare professional (increases in serum potassium may occur as early as 2 days after last dose of potassium binder).
- Stop treatment completely if RAASi therapy is no longer indicated, or if potassium binder therapy is ineffective.

Referral criteria / when to seek advice from secondary care

- GP to seek advice from secondary care if concerns arise on dose adjustments to RAASi or potassium binder.
- GP to seek advice from secondary care if concerns arise about drug interactions, contraindications, cautions or monitoring results.

RED FLAGS

- Potassium <3.5mmol/L - decrease potassium binder dose or discontinue and monitor potassium level as per table above
- Potassium >6.5mmol/L - refer for emergency treatment of acute hyperkalaemia as per table above*

*Secondary care will review RAASi medication as part of emergency management, if a patient will not be seen by the specialist team on the same day, contact secondary care for urgent advice.

Information about potassium binders – refer to BNF and SPC for full prescribing information

Administration instructions

Patiromer – make up in 40ml of water or apple juice and stir well. The powder will not dissolve. Take within an hour of initial suspension. Can be taken with or without food. Separate dose by at least 3 hours from other medications. Patients may store below 25℃ for up to 6 months.

Sodium zirconium cyclosilicate – make up in 45ml of water and stir well. The powder will not dissolve. Administer azole antifungals, anti-HIV drugs and tyrosine kinase inhibitors 2 hours before or after sodium zirconium cyclosilicate.

Sara Perkins, Senior specialist pharmacist – renal & transplant and Dr Albert Power, Consultant nephrologist. North Bristol NHS Trust. Adapted from Hertfordshire and West Essex potassium binder pathway. Version 1.1, Approved BNSSG APMOC April 24 (minor update May 24) Review April 2027.