NHS
Pan Mersey
Area Prescribing Committee

PATIROMER powder for oral suspension (Veltassa® ▼) for persistent hyperkalaemia

The Pan Mersey Area Prescribing Committee recommends the prescribing of PATIROMER powder for oral suspension (Veltassa® ▼) for persistent hyperkalaemia in adults following initiation by a specialist in accordance with NICE TA623.

AMBER following specialist initiation

Patiromer is licensed for the treatment of hyperkalaemia in adults [1]. NICE technology appraisal TA623 recommends patiromer as an option for treating hyperkalaemia in adults only if used:

- in emergency care for acute life-threatening hyperkalaemia alongside standard care (see separate red statement), **or**
- for people with persistent hyperkalaemia and stages 3b to 5 chronic kidney disease or heart failure, if they:
  - have a confirmed serum potassium level of at least 6.0 mmol/litre **and**
  - are not taking, or are taking a reduced dosage of, a renin angiotensin-aldosterone system (RAAS) inhibitor because of hyperkalaemia **and**
  - are not on dialysis[2]

Clinical trials show that patiromer lowers serum potassium but there is no evidence that it extends life or improves quality of life. Stopping RAAS inhibitors would generally be associated with an increased risk of adverse outcomes and disease progression. Patiromer may allow people to stay on RAAS inhibitors for longer or at a higher dose.[2]

For persistent treatment in the clinic setting, treatment must be initiated by a specialist (see local implementation recommendations below). During the titration phase multiple medication changes and blood test monitoring are required. The aim of this titration is to optimise RAAS inhibitor therapy whilst achieving an acceptable serum potassium.

Prescribing and monitoring of patiromer must be retained by the specialist for at least 1 month after the patient is stabilised on the optimum RAAS inhibitor therapy / patiromer combination with stable urea and electrolytes.

Patiromer should be stopped if RAAS inhibitors are no longer suitable.

Note: Patients who are not eligible for treatment under this statement may be considered on an individual basis where their GP or consultant believes exceptional circumstances exist that warrant deviation from the rule of this policy. In this situation, follow locally defined processes.

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Effectiveness [1,2]

Patiromer is a non-absorbed, cation exchange polymer that contains a calcium-sorbitol complex as a counterion. Patiromer increases faecal potassium excretion through binding of potassium in the lumen of the gastrointestinal tract. Binding of potassium reduces the concentration of free potassium in the gastrointestinal lumen, resulting in a reduction of serum potassium levels [1].

OPAL-HK was a phase 3, 12-week, single-blind study that included people with stages 3 and 4 chronic kidney disease, with or without heart failure, who were having a RAAS inhibitor, with serum potassium between 5.1 and 6.5 mmol/litre. The study had 2 parts and its primary outcome was change in serum potassium:

- Part A, 4 weeks (n=243): single-arm dose-ranging study. Everyone had patiromer, and the dosage was adjusted to achieve a target serum potassium between 3.8 mmol/litre and 5.1 mmol/litre.
- Part B, 8 weeks (n=107): randomised, placebo-controlled trial of stopping compared with continuing patiromer, including only people having patiromer whose hyperkalaemia in part A responded (people who had a serum potassium level of 5.5 mmol/litre or more at the beginning of part A and a serum potassium level between 3.8 and 5.1 mmol/litre at the end of part A) and who were still having treatment with a RAAS inhibitor.

During part A of the study, serum potassium decreased for the total population by 1.01 mmol/litre. In part B of the study, for people whose hyperkalaemia responded to patiromer (as defined above), serum potassium levels were 0.72 mmol/litre higher in the placebo arm than the patiromer arm. However, the serum potassium levels in both arms were not within the range that would be treated in the NHS. Also, part B of the trial addressed stopping patiromer in people already on it whose hyperkalaemia had responded rather than starting patiromer in people who might benefit from it [2].

Safety [1,2]

Patiromer is not systemically absorbed. The majority of the adverse reactions reported from trials were gastrointestinal (GI) disorders. The most frequently reported were constipation (6.2%), diarrhoea (3%), abdominal pain (2.9%), flatulence (1.8%). GI reactions were generally mild to moderate in nature and generally resolved spontaneously or with treatment, and none were reported as serious. GI ischaemia, necrosis and/or intestinal perforation have been reported with other potassium binders.

The benefits and risks of administering patiromer should be carefully evaluated in patients with current or history of severe GI disorders, before and during treatment.

In clinical studies, hypomagnesaemia was reported in 9% of patients and was mild to moderate, with no patient developing a serum magnesium level <0.4 mmol/L. Serum magnesium should be monitored for at least 1 month after initiating treatment, and magnesium supplementation considered in patients who develop low serum magnesium levels.

When discontinuing patiromer, serum potassium levels may rise, especially if RAAS inhibitor treatment is continued. Patients should be instructed not to discontinue therapy without consulting their physicians. Increases in serum potassium may occur as early as 2 days after the last patiromer dose.

Serum potassium should be monitored when clinically indicated, including after changes are made to medicinal products that affect the serum potassium concentration (e.g. RAAS inhibitors or diuretics) and after the patiromer dose is titrated.

Patiromer contains calcium as part of the counterion complex. Calcium is partially released some of which may be absorbed. The benefits and risks of administering this medicinal product should be carefully evaluated in patients at risk of hypercalcaemia.

Refer to SPC for full safety information.

Cost[4]

The NHS list price of patiromer is £172.50 per 30-sachet pack, available as 8.4 g sachets or 16.8 g sachets (ex VAT). NICE estimates the cost of implementing this TA as £5,096 per 100,000 population in 2020/21, rising to £15,172 per 100,000 population by end of 2023/24.

Patient factors

Patients who are initiated on patiromer for persistent hyperkalaemia will require frequent monitoring of urea and electrolytes, magnesium and calcium to allow dose titration and optimisation of RAAS therapy. Frequent monitoring should continue for at least 4 weeks until the medicines regime and clinical parameters are stable.

Prescribing information [1]

- The recommended starting dose is 8.4 g once daily. The daily dose may be adjusted in intervals of one week or longer, based on the serum potassium level and the desired target range. The daily dose may be increased or decreased by 8.4 g as necessary to reach the desired target range, up to a maximum dose of 25.2 g daily. If serum potassium falls below the desired range, the dose should be reduced or discontinued.
- The onset of action of patiromer occurs 4 – 7 hours after administration. It should not replace emergency treatment for life threatening hyperkalaemia.
- **Administration of patiromer should be separated by 3 hours from other oral medicinal products**.
- Consideration should be given to other modifiable causes of hyperkalaemia including diet and other medicines including trimethoprim and NSAIDs.

Local Implementation recommendations

- Within the Pan Mersey health economy, the term 'specialist' for the purposes of this prescribing statement is understood to be a Consultant Cardiologist or Nephrologist, Cardiology GPSi or a prescribing member of the specialist team with experience of treating persistent hyperkalaemia and who has access to the relevant specialist multidisciplinary nephrology or heart failure team.
- The specialist is responsible for initiation, dose titration, monitoring and patient review until the patient is stabilised on the optimal RAAS inhibitor therapy / patiromer combination for at least 1 month.
- Any specialist starting patiromer must write to the patient's GP to inform them that it is being initiated within secondary care. The patient's GP should be advised at this stage that advice from the specialist team should be sought before making any changes to the patient's current medication which may affect the patient's serum potassium including (but not limited to) diuretics, RAAS inhibitors and aldosterone antagonists.
- Specialist review is expected to be frequent during the titration phase until the patient is stable when standard regular review can resume according to clinical need.
- Once the patient is considered stable (for at least 1 month) on an optimum regime with stable urea and electrolytes, magnesium and calcium, the patient's GP will be requested to take on the ongoing prescribing of patiromer.
- Clear written communication from the specialist team is required to request transfer of prescribing. The patient must receive an adequate further supply of patiromer from the specialist team to allow the safe transfer of prescribing to primary care.
- Once stabilised, monitoring is unlikely to be any more frequent than current practice in this group of patients.

References

1. Vifor Fresenius Medical Care renal Pharma UK Ltd. Summary of Product Characteristics: Veltassa 16.8g powder for suspension. 06 June 2019. Accessed 24 December 2019.
2. National Institute for Health and Care Excellence. Patiromer for treating hyperkalaemia. NICE Technology Appraisal 623; 13 February 2020. Accessed 24 February 2020.
3. NHS Business Services Authority. Dictionary of Medicine and Devices (dm+d Browser). Accessed online 17 March 2020.