

## BNSSG Health Community's Prescribing Guidance

### Heading

Trust(s)	North Bristol NHS Trust
Speciality / Department:	Renal
Drug:	Renavit® (water soluble vitamins for renal patients)

### Background

Patients with chronic kidney disease (CKD) undergoing dialysis are at risk of lower serum levels of water soluble vitamins due to removal during haemodialysis<sup>1</sup>, dietary restriction and poor gastrointestinal absorption.

Data from the Dialysis Outcomes and Practice Patterns Study (DOPPS) database suggested that supplementation of water soluble vitamins was associated with significantly lower mortality rates<sup>2</sup>.

Vitamin supplements containing fat soluble vitamins (A, D, E and K) are not recommended due to reduced renal losses and risk of accumulation<sup>3</sup>, therefore standard multivitamin preparations are not suitable for CKD patients.

The Renal Association suggest that water soluble vitamin supplements should be offered to dialysis patients with a reduced nutrient intake or those that have unusually high levels of solute clearance on dialysis<sup>1</sup>.

### Treatment Aims

The aim of treatment with renal multivitamins is to prevent dialysis associated vitamin deficiencies in dialysis patients, and to prevent accumulation of harmful fat soluble vitamins.

### Treatment Schedule

Renavit® closely matches the European Best Practice Guidance recommendations<sup>3</sup>. Patients should receive supplements as recommended by the patient's renal consultant:

- Haemodialysis patients: 1 tablet post dialysis (usually 3 times a week)
- Peritoneal dialysis patients: 1 tablet daily

#### Description of composition

Each coated Renavit® tablet (0.45g) contains<sup>4</sup>:

Thiamine	(Vitamin B <sub>1</sub> )	3mg
Riboflavin	(Vitamin B <sub>2</sub> )	1.7mg
Nicotinamide	(Vitamin B <sub>3</sub> )	20mg
Pantothenic acid	(Vitamin B <sub>5</sub> )	10mg
Pyridoxine	(Vitamin B <sub>6</sub> )	10mg
Biotin	(Vitamin B <sub>8</sub> )	60 micrograms
Folic acid	(Vitamin B <sub>9</sub> )	1mg
Cobalamin	(Vitamin B <sub>12</sub> )	6 micrograms
Ascorbic acid	(Vitamin C)	120mg

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## Monitoring

No specific monitoring in primary care is required. All dialysis patients undergo regular biochemical monitoring and dietetic review to identify and manage nutritional and vitamin deficiencies.

## Side Effects

Renavit<sup>®</sup> should not be administered to patients with an allergy to any ingredients or excipients. Please see Renavit<sup>®</sup> Datasheet for full list.

## Drug Interactions

None reported, however prescribers should be vigilant for patients self-medicating with additional multi-vitamin products which may duplicate active ingredients or contain additional harmful supplements.

## Caution and Special recommendations

Renavit contains gelatine – please be aware that patients may not wish to consume gelatine for cultural reasons.

## Advice to Patients

None.

## Contact Details (please insert more rows if required)

Name	Organisation	Telephone Number	E mail address
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## Document Details

Date prepared	October 2013
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Date updated	August 2020
Updated by	Suzy Powell Pharmacist North Bristol NHS Trust
Date of review	August 2022

## Collaboration

Specialists in any one discipline are encouraged to collaborate across the health community in preparing shared care guidance. Please give details

Shared with UHBW and agreed to approve

## References

1. The Renal Association Clinical Practice Guideline: Undernutrition in chronic kidney disease (2019). Available via <https://renal.org/wp-content/uploads/2019/06/FINAL-Nutrition-guideline-June-2019.pdf>
2. Dialysis Outcomes and Practice Patterns Study (DOPPS) data on medications in hemodialysis patients (2004). American Journal of Kidney Diseases, Volume 44, supplement 2, pages 61-67.
3. European Best Practice Guideline (EBPG) on Nutrition. Nephrology Dialysis Transplantation, Volume 22, Issue suppl\_2, 1 May 2007, pages ii45–ii87
4. Product data sheet supplied by RenalCare