ANNEX I

SUMMARY OF PRODUCT CHARACTERISTICS

This medicinal product is subject to additional monitoring. This will allow quick identification of new safety information. Healthcare professionals are asked to report any suspected adverse reactions. See section 4.8 for how to report adverse reactions.

## 1. NAME OF THE MEDICINAL PRODUCT

Yorvipath 168 micrograms/0.56 mL solution for injection in pre-filled pen Yorvipath 294 micrograms/0.98 mL solution for injection in pre-filled pen Yorvipath 420 micrograms/1.4 mL solution for injection in pre-filled pen

## 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Yorvipath consists of PTH(1-34) conjugated to a methoxypolyethylene glycol carrier (mPEG) via a Linker.

#### Yorvipath 168 micrograms/0.56 mL solution for injection in pre-filled pen

Each pre-filled pen contains palopegteriparatide equivalent to 168 micrograms of PTH(1-34) in 0.56 mL of solvent\*. The concentration based on PTH(1-34) is 0.3 mg/mL. Each pre-filled pen delivers doses of 6, 9, or 12 micrograms of PTH(1-34).

## Yorvipath 294 micrograms/0.98 mL solution for injection in pre-filled pen

Each pre-filled pen contains palopegteriparatide equivalent to 294 micrograms of PTH(1-34) in 0.98 mL of solvent\*. The concentration based on PTH(1-34) is 0.3 mg/mL. Each pre-filled pen delivers doses of 15, 18, or 21 micrograms of PTH(1-34).

## Yorvipath 420 micrograms/1.4 mL solution for injection in pre-filled pen

Each pre-filled pen contains palopegteriparatide equivalent to 420 micrograms of PTH(1-34) in 1.4 mL of solvent\*. The concentration based on PTH(1-34) is 0.3 mg/mL. Each pre-filled pen delivers doses of 24, 27, or 30 micrograms of PTH(1-34).

\*The strength indicates the quantity of the PTH(1-34) moiety without consideration of the mPEG-linker.

For the full list of excipients, see section 6.1.

## **3. PHARMACEUTICAL FORM**

Solution for injection (injection)

Clear and colourless with a pH of 3.7 - 4.3.

## 4. CLINICAL PARTICULARS

## 4.1 Therapeutic indications

Yorvipath is a parathyroid hormone (PTH) replacement therapy indicated for the treatment of adults with chronic hypoparathyroidism.

## 4.2 Posology and method of administration

Treatment should be initiated and monitored by physicians or qualified healthcare professionals experienced in the diagnosis and management of patients with hypoparathyroidism.

## Posology

Dose recommendations of Yorvipath refer to micrograms of PTH(1-34). The dose should be individualised based on serum calcium. The optimal dose after titration is the minimum dose required to prevent hypocalcaemia. This is the dose that maintains serum calcium within the normal range without the need for active forms of vitamin D or calcium supplementation beyond recommended nutritional supplementation for the general population (generally less than 600 mg per day). Doses of active forms of vitamin D and calcium supplements will need to be adjusted prior to initiating and during treatment with Yorvipath based on serum calcium value (see section 4.4).

Patients receiving the maximum Yorvipath dose of 60 mcg per day who experience ongoing hypocalcaemia may require co-administration of therapeutic calcium and/or active forms of vitamin D.

## Before initiation of Yorvipath

Serum 25(OH) vitamin D should be within the normal range and serum calcium should be stable within or slightly below the normal range (1.95 - 2.64 mmol/L [7.8 - 10.6 mg/dL]) on at least 1 laboratory value at least two weeks prior to first dose of treatment.

## Initiation of Yorvipath

The recommended starting dose is 18 mcg once daily with dose adjustments in 3 mcg increments thereafter every 7 days (see figure 1). The dose range is 6 to 60 mcg per day.

When initiating treatment with Yorvipath, the dose of active vitamin D or calcium supplements should be adjusted:

- If taking active vitamin D:
  - If serum calcium is  $\geq 2.07 \text{ mmol/L} [\geq 8.3 \text{ mg/dL}]$ , active vitamin D (calcitriol or alfacalcidol) should be discontinued on the same day as the first dose of Yorvipath. Doses of calcium supplements should be maintained.
  - If serum calcium is < 2.07 mmol/L [< 8.3 mg/dL], active vitamin D should be reduced by  $\ge 50\%$  on the same day as the first dose of Yorvipath. Doses of calcium supplements should be maintained.
- If not taking active vitamin D:
  - Calcium supplements should be decreased by at least 1 500 mg on the same day as the first dose of Yorvipath. If taking elemental calcium doses  $\leq$  1 500 mg per day, calcium supplements should be discontinued entirely.
- If calcium supplements are indicated to meet dietary requirements, continuing dietary calcium supplements at doses  $\leq 600$  mg per day may be considered instead of discontinuing entirely.

## Dose adjustment and maintenance of Yorvipath

Serum calcium concentration must be monitored during titration (see section 4.4). Yorvipath dose may be increased in increments of 3 mcg if at least 7 days have elapsed since a prior dose change (see figure 1). The dose must not be increased more often than every 7 days. Yorvipath may be reduced in increments of 3 mcg no more often than every 3 days in response to hypercalcaemia (see figure 1).

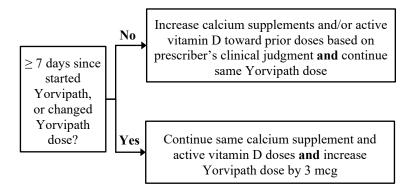
Serum calcium should be measured 7 days after the first dose and figure 1 should be followed for appropriate Yorvipath, active vitamin D, and calcium supplement dosing. After any subsequent dose change in Yorvipath, active vitamin D, or calcium supplements, serum calcium should be measured

within 7 to 14 days and patients should be monitored for clinical symptoms of hypocalcaemia or hypercalcaemia. Yorvipath, active vitamin D, and/or calcium supplements should be adjusted as per figure 1. Dose adjustments of Yorvipath, active vitamin D, and calcium supplements should be made on the same day.

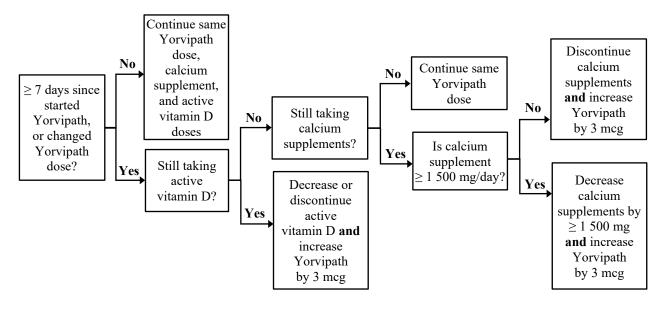
The maintenance dose should be the dose that achieves serum calcium within the normal range, without the need for active vitamin D or therapeutic doses of calcium. Optionally, calcium supplementation sufficient to meet dietary requirements ( $\leq 600$  mg per day) may be continued. Serum calcium and 25(OH) vitamin D should be measured as per standard of care when a maintenance dose is achieved. 25(OH) vitamin D (non-active vitamin D) supplementation may be needed to reach normal serum levels.

#### Figure 1: Titration of Yorvipath, active vitamin D, and calcium supplements

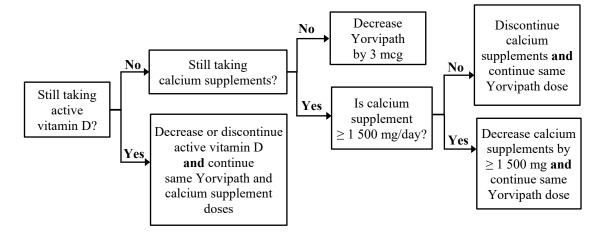
Serum calcium low (< 2.07 mmol/L [< 8.3 mg/dL]):



Serum calcium normal ( $\geq 2.07$  to  $\leq 2.64$  mmol/L [ $\geq 8.3$  to  $\leq 10.6$  mg/dL]):



Serum calcium high (≥ 2.65 to < 3.00 mmol/L [≥ 10.7 to < 12.0 mg/dL]):



#### Serum calcium very high (≥ 3.00 mmol/L [≥ 12 mg/dL]):

Treatment should be withheld for 2 to 3 days and then serum calcium should be rechecked. If subsequent serum calcium is < 3.00 mmol/L [< 12 mg/dL], titration of Yorvipath, active vitamin D, and calcium supplements should be resumed as per the applicable section of figure 1 using the most recent serum calcium value obtained. If serum calcium remains  $\geq$  3.00 mmol/L [ $\geq$  12 mg/dL], Yorvipath should be withheld for an additional 2 to 3 days and then serum calcium should be rechecked. See section 4.4 for more information on hypercalcaemia.

#### Missed dose

If a dose is missed by less than 12 hours, it should be administered as soon as possible. If a dose is missed by more than 12 hours, it should be skipped and the next dose should be administered as scheduled.

#### Interruption or discontinuation of Yorvipath

Interruption of daily administration should be avoided to minimise serum PTH fluctuations. Interruption or discontinuation of treatment can result in hypocalcaemia. When interrupting or discontinuing treatment for 3 or more consecutive doses, patients should be monitored for signs and symptoms of hypocalcaemia and consider to measure serum calcium. If indicated, treatment with calcium supplements and active vitamin D should be resumed. Treatment at the prescribed dose should be resumed as soon as possible after an interruption. When resuming treatment after an interruption, serum calcium should be measured and doses of Yorvipath, active vitamin D, and calcium supplements should be adjusted as per figure 1.

#### Special populations

Elderly

Dose adjustment is not required based on age (see section 5.2).

## Hepatic impairment

Yorvipath has not been studied in patients with severe hepatic impairment and should be used with caution in these patients (see section 4.4).

#### Renal impairment

Dose adjustment is not required in patients with an estimated glomerular filtration rate (eGFR)  $\geq$  30 mL/min. Serum calcium levels should be measured more frequently when used in patients with eGFR < 45 mL/min (see section 4.4). Yorvipath has not been studied in patients with hypoparathyroidism and severe renal impairment (eGFR < 30 mL/min) (see section 5.2).

#### Paediatric population

The safety and efficacy of Yorvipath in children less than 18 years of age have not yet been established. No data are available.

#### Method of administration

Yorvipath must be administered as a subcutaneous injection to the abdomen or front of the thigh. The injection site should be rotated daily between four possible sites; abdomen (left or right) and front of the thigh (left or right).

## Doses > 30 mcg per day (sequential injections)

All doses > 30 mcg per day should be administered as two single doses injected sequentially at different injection sites (table 1). It is recommended to use a different Yorvipath pen for the second daily injection, even if the two pens have the same-coloured push button (same strength).

Dose	Dosing scheme	Pen combination				
33 mcg/day	15  mcg/day + 18  mcg/day					
36 mcg/day	18  mcg/day + 18  mcg/day	Two pre-filled pens of Yorvipath 294 mcg/0.98 mL				
39 mcg/day	18  mcg/day + 21  mcg/day	(orange push button)*				
42 mcg/day	21  mcg/day + 21  mcg/day					
45 mcg/day	21 mcg/day + 24 mcg/day	One pre-filled pen of Yorvipath 294 mcg/0.98 mL (orange push button) + One pre-filled pen of Yorvipath 420 mcg/1.4 mL (burgundy push button)**				
48 mcg/day	24 mcg/day + 24 mcg/day					
51 mcg/day	24  mcg/day + 27  mcg/day	Two me filled news of Veryingth 420 meg/1 4 ml				
54 mcg/day	27  mcg/day + 27  mcg/day	Two pre-filled pens of Yorvipath 420 mcg/1.4 mL (burgundy push button)				
57 mcg/day	27  mcg/day + 30  mcg/day	(ourgunay push button)				
60 mcg/day	30  mcg/day + 30  mcg/day					

\*Yorvipath 294 micrograms/0.98 mL delivers doses of 15, 18, or 21 mcg of PTH(1-34) (with orange push button) \*\*Yorvipath 420 micrograms/1.4 mL delivers doses of 24, 27, or 30 mcg of PTH(1-34) (with burgundy push button)

#### 4.3 Contraindications

- Hypersensitivity to the active substance or to any of the excipients listed in section 6.1
- Patients with pseudohypoparathyroidism

#### 4.4 Special warnings and precautions for use

#### Hypercalcaemia

Serious events of hypercalcaemia have been reported with Yorvipath (see section 4.8). The risk is highest when starting or increasing the dose. During treatment, serum calcium should be measured (see section 4.2) and patients should be monitored for signs and symptoms of hypercalcaemia. If severe hypercalcaemia occurs, treatment should be as per clinical guidelines and dose adjustment of Yorvipath should be considered (see section 4.2).

#### Hypocalcaemia

Serious events of hypocalcaemia have been reported with Yorvipath (see section 4.8). The risk is highest when treatment is abruptly discontinued but may occur at any time. During treatment, serum calcium should be measured and patients should be monitored for signs and symptoms of hypocalcaemia. If severe hypocalcaemia occurs, treatment should be as per clinical guidelines, dose adjustment of Yorvipath should be considered, and dose adjustment of standing or as needed doses of active vitamin D and/or calcium supplements should be considered (see section 4.2).

#### Concomitant use with cardiac glycosides

Hypercalcaemia of any cause may predispose to digitalis toxicity. In patients using Yorvipath concomitantly with cardiac glycosides (such as digoxin or digitoxin), serum calcium and cardiac glycoside levels should be monitored and patients should be observed for signs and symptoms of digitalis toxicity (see section 4.5).

#### Severe renal or hepatic disease

No studies have been performed in patients with severe renal impairment and severe hepatic impairment. Use with caution in these patient populations. Patients with eGFR of < 45 mL/min may be more susceptible for hypercalcaemic reactions and transient eGFR decrease, particularly when initiating treatment. If treatment is initiated in these patients, it is recommended to closely monitor serum calcium levels.

#### Use in patients at increased risk of osteosarcoma

Yorvipath has not been studied in and should be used with caution in patients;

- with skeletal malignancies and bone metastases
- who are receiving or who have received radiation therapy to the skeleton
- with unexplained elevations of bone-specific alkaline phosphatase

- with metabolic bone diseases who are at increased baseline risk for osteosarcoma (e.g., Paget's disease of the bone)

#### Use in patients with osteoporosis

Screening for and monitoring of osteoporosis should be consistent with local clinical practice for any patient at increased risk of fragility fractures (see section 4.8).

#### Sodium content

This medicinal product contains less than 1 mmol sodium (23 mg) per dose, that is to say essentially 'sodium-free'.

#### 4.5 Interaction with other medicinal products and other forms of interaction

No interaction studies have been performed.

Cardiac glycosides (such as digoxin or digitoxin) have a narrow therapeutic index and are affected by calcium. Patients should be monitored for signs and symptoms of digitalis toxicity when taking Yorvipath and cardiac glycosides.

Other medicinal products can exert effects on serum calcium and may alter the therapeutic response to Yorvipath, including but not limited to bisphosphonates, denosumab, romosozumab, thiazide and loop diuretics, systemic corticosteroids, and lithium. Patients should be monitored for changes in serum calcium when treated concomitantly with these medicinal products.

#### 4.6 Fertility, pregnancy and lactation

#### Pregnancy

There are no or limited amount of data from the use of Yorvipath in pregnant females. Animal studies do not indicate direct or indirect harmful effects with respect to reproductive toxicity (see section 5.3). However, a risk to the pregnant female or developing foetus cannot be excluded. A decision to initiate or discontinue treatment with Yorvipath during pregnancy should take into account the possible risks versus the benefits for the pregnant female. It is recommended to closely monitor maternal serum calcium levels in pregnant females with hypoparathyroidism, including if treated with Yorvipath.

#### Breast-feeding

It is unknown whether palopegteriparatide is excreted in human milk. As palopegteriparatide is not orally absorbed, it is unlikely to adversely affect the breast-fed child. A decision to discontinue breast-feeding or Yorvipath therapy should take into account the benefit of breast-feeding for the child

and the benefit of therapy for the female. It is recommended to closely monitor maternal serum calcium levels if breast-feeding with hypoparathyroidism, including if treated with Yorvipath.

## Fertility

No studies have been performed on the effects of palopegteriparatide on human fertility. Data from animal studies do not indicate that administration of palopegteriparatide impairs fertility (see section 5.3).

## 4.7 Effects on ability to drive and use machines

Yorvipath has no or negligible influence on the ability to drive and use machines. However, dizziness, presyncope, syncope and/or orthostatic hypotension was observed in some patients. These patients should refrain from driving or the use of machines until symptoms have subsided.

## 4.8 Undesirable effects

## Summary of the safety profile

The most frequently reported adverse reactions in clinical trials with palopegteriparatide were injection site reactions (21.6%), headache (18.7%), and paraesthesia (13.7%). The most serious adverse reaction reported in clinical trials was hypercalcaemia (1.40%).

## Tabulated list of adverse reactions

Table 2 presents the adverse reactions for palopegteriparatide-treated patients identified in all phase 2 and phase 3 placebo-controlled studies within the MedDRA system organ class. The adverse reactions listed in the table below are presented by system organ class and frequency categories, defined using the following convention: very common ( $\geq 1/10$ ); common ( $\geq 1/100$  to < 1/10), uncommon ( $\geq 1/1000$  to < 1/100), rare ( $\geq 1/10000$  to < 1/1000), very rare (< 1/10000), and frequency not known (cannot be estimated from the available data). Within each frequency grouping, adverse reactions are presented in the order of decreasing seriousness.

MedDRA system organ class	Frequency	Adverse reaction	
Metabolism and nutrition disorders	Common	Hypercalcaemia <sup>a</sup> , Hypocalcaemia	
Nervous system disorders	Very common	Headache <sup>d</sup> , Paraesthesia <sup>a</sup>	
	Common	Dizziness <sup>a, c, d</sup> , Syncope <sup>d</sup> , Presyncope <sup>d</sup>	
Cardiac disorders	Common	Palpitations <sup>d</sup> , Postural orthostatic tachycardia syndrome <sup>d</sup>	
Vascular disorders	Common	Orthostatic hypotension <sup>d</sup>	
	Uncommon	Hypertension <sup>e</sup>	
Respiratory, thoracic and mediastinal disorders	Common	Oropharyngeal pain	
Gastrointestinal disorders	Very common	Nausea <sup>a</sup>	
	Common	Diarrhoea <sup>a</sup> , Constipation, Vomiting, Abdominal discomfort, Abdominal pain	
Skin and subcutaneous tissue disorders	Common	Rash, Photosensitivity reaction	
Musculoskeletal and connective tissue disorders	Common	Arthralgia, Myalgia, Muscle twitching <sup>f</sup> , Musculoskeletal pain <sup>f</sup>	
Renal and urinary disorders	Uncommon	Nocturia <sup>e</sup>	
	Frequency not known	Polyuria <sup>e</sup>	
General disorders and administration site	Very common	Injection site reactions <sup>a, b</sup> , Fatigue	
conditions	Common	Asthenia, Thirst	
	Uncommon	Chest discomfort <sup>f</sup> , Chest pain <sup>f</sup>	
Investigations	Frequency not known	Bone density decreased	

 Table 2. Frequency of adverse reactions of palopegteriparatide

<sup>a</sup> For these adverse reactions, the first occurrence was almost exclusively within the first 3 months of treatment (titration period).

<sup>b</sup> Injection site reactions include injection site reaction, injection site erythema, injection site bruising, injection site pain,

injection site haemorrhage, injection site rash, and injection site swelling.

<sup>c</sup> Dizziness includes dizziness and dizziness postural.

<sup>d</sup> Vasodilatory symptoms include dizziness postural, headache, palpitations, Postural orthostatic tachycardia syndrome, orthostatic hypotension, Blood pressure orthostatic decreased and syncope. Vasodilatory symptoms (as identified in clinical trials) occurred more frequently in the first 3 months of treatment and constituted a subset of total events reported as adverse reactions. A total of 3 events (in 2 patients) considered related to palopegteriparatide occurred within the first 3 months in TCP-304: dizziness postural (n=1), and headache and palpitations (n=1).

<sup>e</sup> These signs and symptoms are potentially associated with hypercalcaemia, as observed in clinical trials.

<sup>f</sup> These signs and symptoms are potentially associated with hypocalcaemia, as observed in clinical trials.

#### Description of selected adverse reactions

#### <u>Hypercalcaemia</u>

Serious events of hypercalcaemia have been reported with Yorvipath. The incidence of hypercalcemia was greater in patients treated with Yorvipath compared to placebo. During the blinded period, symptomatic hypercalcemia was reported in 8.6% of patients treated with Yorvipath, and all occurred within the first 3 months after initiation of Yorvipath.

#### Immunogenicity

Patients may develop antibodies to palopegteriparatide. The proportion of patients testing positive for binding antibodies at any time during treatment was low, with 0.7% having low titre, non-neutralising antibodies towards PTH and 5% having low titre treatment-emergent antibodies against PEG. In 2.2% of the palopegteriparatide-treated patients with pre-existing PEG antibodies, a transient impact on PK (increased clearance of total PTH, mPEG and decreased PTH concentrations) with decreasing serum calcium was observed. However, therapeutic effectiveness was maintained by appropriate dose adjustment of palopegteriparatide according to the trial titration algorithm.

## Injection site reactions

Injection site reactions were the most common adverse reactions reported in clinical trials (median onset was 2.5 days; incidence of 21.6%). The most common injection site reactions were localised erythema (all < 5 cm with the majority 0 to < 2 cm) and were mild or moderate (grade 1 or 2) in severity with median duration of 72 hours. All injection site reactions resolved without treatment; none were serious or led to discontinuation.

#### Vasodilatory symptoms

Vasodilatory symptoms have been reported with Yorvipath. These symptoms are usually transient and resolved without treatment; none were serious or led to discontinuation. If symptoms occur, dosing at bedtime while reclining is recommended.

#### Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the national reporting system listed in <u>Appendix V</u>.

#### 4.9 Overdose

In the event of overdose, the patient should be carefully monitored by a medical professional.

Overdose can cause hypercalcaemia, the manifestations of which may include dehydration, heart palpitations, ECG changes, hypotension, nausea, vomiting, dizziness, muscle weakness, and confusion. Severe hypercalcaemia may require medical care and careful monitoring (see section 4.4).

One instance of accidental overdose of approximately 3-fold the prescribed dose lasting more than 7 consecutive days resulted in serum calcium as high as 16.1 mg/dL, the patient was symptomatic and required medical intervention. After withholding palopegteriparatide, calcium, and active vitamin D, the patient recovered and restarted on the correct dose.

## 5. PHARMACOLOGICAL PROPERTIES

## 5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Calcium homeostasis, parathyroid hormones and analogues, ATC code: H05AA05

#### Mechanism of action

Endogenous parathyroid hormone (PTH) is secreted by the parathyroid glands as a polypeptide of 84 amino acids. PTH exerts its action via cell-surface parathyroid hormone receptors, for example, expressed in bone, kidney and nerve tissue. Activation of PTH1R stimulates bone turnover, increases renal calcium reabsorption and phosphate excretion and facilitates synthesis of active vitamin D.

Palopegteriparatide is a prodrug, consisting of PTH(1-34) conjugated to a methoxypolyethylene glycol carrier (mPEG) via a proprietary TransCon Linker. PTH(1-34) and its main metabolite, PTH(1-33), have similar affinity to and activation of PTH1R as endogenous PTH. At physiological conditions, PTH is cleaved from palopegteriparatide in a controlled manner to provide a continuous systemic exposure of active PTH.

#### Clinical efficacy and safety

#### Study in patients with established hypoparathyroidism

The pivotal phase 3 PaTHway clinical trial (TCP-304) assessed the efficacy and safety of Yorvipath as PTH replacement therapy for adults with hypoparathyroidism. The 26-week double-blind, placebo-controlled period of the clinical trial included patients randomised (3:1) to Yorvipath at a starting dose of 18 micrograms/day or placebo, co-administered with conventional therapy (calcium supplement and active vitamin D). Randomisation was stratified by aetiology of hypoparathyroidism (i.e., postsurgical vs. all other causes). Study treatment (palopegteriparatide or placebo) and conventional therapy were subsequently titrated according to a dosing algorithm guided by albumin-adjusted serum calcium levels.

Patients' mean age at recruitment was 49 years (19 to 78 years of age; 12% were  $\geq$  65 years old), and the majority of patients were female (78%) and Caucasian (93%). Eighty-five percent (85%) of patients had hypoparathyroidism acquired from neck surgery. Of the patients with other aetiologies of hypoparathyroidism, 7 (8.5%) patients had idiopathic disease, 2 had autoimmune polyglandular syndrome type 1 (APS-1), 1 had autosomal dominant hypocalcaemia type 1 (ADH1, CaSR mutation), 1 had DiGeorge Syndrome, and 1 had hypoparathyroidism, sensorineural deafness and renal dysplasia (HDR) syndrome (GATA3 mutation).

Prior to randomisation, all patients underwent an approximate 4-week screening period in which calcium and active vitamin D supplements were adjusted to achieve an albumin-adjusted serum calcium concentration between 1.95 to 2.64 mmol/L (7.8 to 10.6 mg/dL), a magnesium concentration  $\geq 0.53 \text{ mmol/L} (\geq 1.3 \text{ mg/dL})$  and below the upper reference range of normal, and a 25(OH) vitamin D concentration between 50 to 200 nmol/L (20 to 80 ng/mL). For conventional therapy, patients were treated with mean baseline doses of calcium (elemental) of 1 839 mg/day. Mean baseline doses of active vitamin D were 0.75 micrograms/day in calcitriol-treated patients (n=70), and 2.3 micrograms/day in alfacalcidol-treated patients (n=12). Baseline mean albumin-adjusted serum calcium and mean 24-hour urine calcium were similar in both treatment groups: mean serum calcium was 2.2 mmol/L (8.8 mg/dL) and 2.15 mmol/L (8.6 mg/dL) and mean 24-hour urine calcium was 392 mg/day and 329 mg/day, for Yorvipath and placebo, respectively.

#### Primary endpoint

The composite primary efficacy endpoint was defined as the proportion of patients at week 26 who achieved: serum calcium levels in the normal range (2.07 to 2.64 mmol/L [8.3 to 10.6 mg/dL]), independence from conventional therapy defined as requiring no active vitamin D and  $\leq$  600 mg/day of calcium supplementation, and no increase in prescribed study treatment within 4 weeks prior to week 26. Key secondary endpoints included a subset of Hypoparathyroidism Patient Experience Scale (HPES) domain scores and 36-Item Short Form Survey (SF-36) subscale scores.

The number of patients meeting the composite primary endpoint compared with the placebo group and each component of the primary endpoint at week 26 is presented in table 3.

	Yorvipath (N=61) (n, %)	Placebo (N=21) (n, %)	Response rate difference (95% CI)
Response at week 26	48 (78.7%)	1 (4.8%)	74.0% (60.4%, 87.6%) p < 0.0001
Response for each component			
Albumin-adjusted serum calcium within normal range <sup>a</sup>	49 (80.3%)	10 (47.6%)	32.7% (9.2%, 56.3%)
Independence from active vitamin D <sup>b</sup>	60 (98.4%)	5 (23.8%)	74.6% (56.1%, 93.1%)
Independence from therapeutic doses of calcium <sup>c</sup>	57 (93.4%)	1 (4.8%)	88.7% (77.7%, 99.7%)
No dose increase in Yorvipath <sup>d</sup>	57 (93.4%)	12 (57.1%)	36.4% (14.2%, 58.5%)

## Table 3: TCP-304: Response rate based on primary endpoint at week 26

<sup>a</sup> The normal range for albumin-adjusted serum calcium was 2.07 to 2.64 mmol/L (8.3 to 10.6 mg/dL).

<sup>b</sup> All daily standing doses of active vitamin D equal to zero AND use of PRN doses for  $\leq$  7 days within 4 weeks prior to week 26 visit.

<sup>c</sup> Average daily standing doses of elemental calcium  $\leq 600$  mg AND use of PRN doses on  $\leq 7$  days within 4 weeks prior to week 26 visit.

<sup>d</sup> No dose increase in Yorvipath within 4 weeks prior to week 26 visit.

Abbreviations: CI: confidence interval; PRN: pro re nata.

#### Secondary endpoints

#### Conventional therapy intake: calcium and active vitamin D doses

In the phase 3 PaTHway trial, at week 26, 93% (57/61) of patients in the Yorvipath group were able to discontinue conventional therapy (i.e., discontinue active vitamin D and therapeutic doses of calcium). All patients in the Yorvipath group discontinued active vitamin D by week 8 and had sustained reduction in therapeutic doses of calcium. There was a significant reduction in conventional therapy intake in the Yorvipath group from baseline to week 26 compared with placebo: active vitamin D (nominal p-value < 0.0001), calcium dose (nominal p-value = 0.0003), and daily pill burden (nominal p-value < 0.0001) (table 4).

Table 4: Secondary endpoints: conventional therapy intake at week 26 - blinded period	od
(ITT population)	

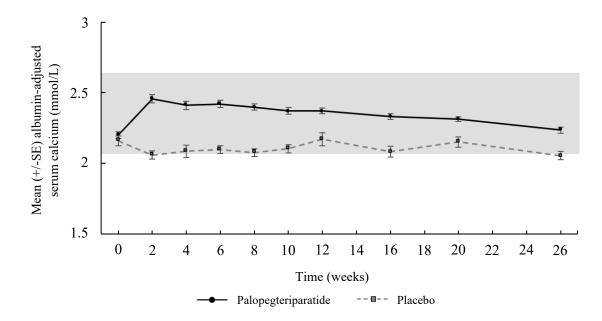
	Yorvipath (n/N=60/61) <sup>a</sup>		Placebo (n/N=19/21) <sup>a</sup>		Nominal
	Baseline	Week 26	Baseline	Week 26	p-value
Supplemental active vitamin D dose (mcg), mean (SD)	1.0 (0.7)	0.0 (0.0)	1.0 (0.6)	0.6 (0.7)	< 0.0001
Supplemental calcium dose (mg), mean (SD)	1 737 (907)	274 (177)	2 089 (1 448)	1 847 (1 326)	0.0003
Daily pill burden (number of conventional therapy pills), mean (SD)	6.6 (2.1)	0.5 (1.7)	6.3 (2.8)	5.4 (3.2)	< 0.0001

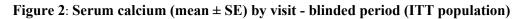
Nominal p-value from testing the differences in change from baseline to week 26 between Yorvipath and placebo.

<sup>a</sup> N is the number of patients in the ITT population; n is the number of patients with data at both baseline and week 26.

#### Serum biochemistries

Mean serum calcium initially increased and stayed within the normal range in palopegteriparatidetreated patients (figure 2). In placebo patients, serum calcium levels decreased slightly, falling below normal range at week 2 (mean observed value: 2.06 mmol/L) and at week 26 (mean observed value: 2.06 mmol/L). The LS mean treatment difference between Yorvipath and placebo was 0.17 mmol/L (95% CI: 0.100, 0.247; nominal p < 0.0001) at week 26.





Mean serum phosphate levels for palopegteriparatide-treated patients were in the normal range at baseline and fell within the normal range through week 26 (Mean change from baseline to week 26 was -0.13 mmol/L). Mean serum calcium x phosphate product decreased in patients treated with Yorvipath and remained stable within the normal range through week 26.

#### 24-hour urine calcium excretion

Yorvipath therapy normalised mean 24-hour urine calcium excretion and showed greater reduction in 24-hour urine calcium versus placebo.

#### Paediatric population

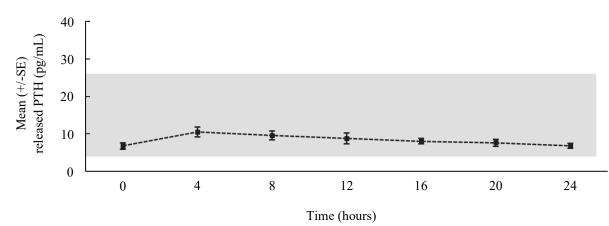
The European Medicines Agency has deferred the obligation to submit the results of studies with Yorvipath in one or more subsets of the paediatric population in hypoparathyroidism, as per paediatric investigation plan (PIP) decision, for the indication of treatment of hypoparathyroidism.

#### 5.2 Pharmacokinetic properties

#### Absorption

Following daily subcutaneous administration, palopegteriparatide releases PTH via autocleavage of the TransCon Linker with first-order kinetics, resulting in continuous exposure over 24 hours within the estimated normal range (figure 3).

Figure 3: Mean released PTH\* following subcutaneous administration of palopegteriparatide at steady state in patients with hypoparathyroidism



The estimated normal range for PTH(1-34) is approximately 4 to 26 pg/mL. This is calculated based on PTH(1-34) constituting 40% of the molecular weight of PTH(1-84)\*\* and the normal range (10 to 65 pg/mL) for PTH(1-84). \* Mean palopegteriparatide dose (range): 22.3 (12-33) mcg PTH(1-34)/day, n=7, released PTH: sum of PTH(1-34) and PTH(1-33).

\*\* PTH(1-84) = endogenous parathyroid hormone.

In patients with hypoparathyroidism administered palopegteriparatide corresponding to 18 mcg of PTH(1-34)/day, the predicted maximum plasma concentration ( $C_{max}$ ) (CV%) of palopegteriparatide was 5.18 ng/mL (36%) and the predicted  $C_{max}$  (CV%) for released PTH was 6.9 pg/mL (22%) with a median time to reach maximum concentrations ( $T_{max}$ ) of 4 hours. The predicted exposure over the 24-hour dosing interval (area under the curve, AUC) (CV%) for released PTH was 150 pg\*h/mL (22%).

Following multiple subcutaneous doses of palopegteriparatide in the range of 12 to 24 mcg PTH(1-34)/day, the palopegteriparatide and released PTH concentrations increased in a dose-proportional manner reaching steady-state within approximately 10 and 7 days, respectively. The peak-to-trough ratio was low, approximately 1.1 and 1.5 over 24 hours at steady state for palopegteriparatide and released PTH, respectively. Palopegteriparatide accumulated after multiple dosing by up to 18-fold for AUC.

#### Distribution

The apparent volume of distribution (CV%) of palopegteriparatide is estimated to 4.8 L (50%) and to 8.7 L (18%) for released PTH.

#### **Biotransformation**

PTH released from palopegteriparatide is composed of PTH(1-34) and the metabolite PTH(1-33). PTH is renally metabolised and cleared.

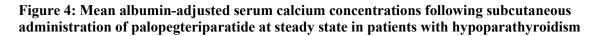
#### **Elimination**

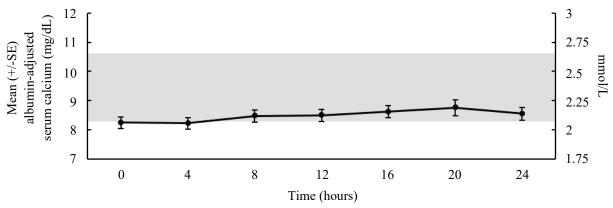
In healthy adults, the clearance (CV%) of palopegteriparatide at steady state is estimated to be 0.58 L/day (52%) with a predicted half-life of 70 hours. The apparent half-life of PTH released from palopegteriparatide is approximately 60 hours. In the liver, most of the PTH is cleaved by cathepsins. In the kidney, a small amount of PTH binds to PTH1R, but most is excreted by glomerular filtration.

#### Pharmacokinetic/pharmacodynamic relationship

In a pharmacodynamic/pharmacokinetic sub-study in hypoparathyroid patients, daily subcutaneous administration of palopegteriparatide (mean dose (range): 22.3 (12-33) mcg PTH(1-34)/day) increased serum calcium levels to within the normal range (see figure 4). The increase in serum calcium levels

occurred in a dose-related manner, supporting the ability to titrate palopegteriparatide according to measured serum calcium values in the individual patient.





The normal range for albumin-adjusted serum calcium is 2.07 to 2.64 mmol/L (8.3 to 10.6 mg/dL) as denoted by the grey shading. Mean palopegteriparatide dose (range): 22.3 (12-33) mcg PTH(1-34)/day, n=7.

#### Special populations

The pharmacokinetics of released PTH was not influenced by sex or body weight. The data for race and ethnicity did not show any trends indicating differences, but the available data are too limited to make definitive conclusions.

#### Elderly

The pharmacokinetics of released PTH was not influenced by age (19 to 76 years old).

#### Renal impairment

Yorvipath has been administered to patients with hypoparathyroidism with an eGFR of  $\geq$  30 mL/min in long-term clinical trials without the need for dose adjustment beyond the trial titration algorithm. No clinical trials were conducted in patients with hypoparathyroidism with severe renal impairment (< 30 mL/min) or on dialysis. In a trial where Yorvipath was administered as a single dose to non-hypoparathyroid subjects with renal impairment, palopegteriparatide exposure and resulting serum calcium levels were similar in subjects with mild, moderate, and severe renal impairment as compared to subjects without renal impairment.

#### 5.3 Preclinical safety data

No special hazard for humans were revealed in the conventional studies of safety pharmacology, genotoxicity, and local tolerance conducted with palopegteriparatide.

At the highest dose levels in all animal species employed, repeated dosing resulted in adverse persistent hypercalcemia, which in some studies led to premature death/euthanasia, clinical signs, body weight loss and/or soft tissue mineralisation observed mainly in the kidneys. These findings are considered results of persistent exaggerated PTH pharmacology and of no relevance in a clinical setting where dose adjustments are performed to ensure normalised serum calcium.

In accordance with the expected pharmacological effects, repeated daily administration of palopegteriparatide increased bone turnover in rats. At low dose levels (2-fold the maximum recommended human dose (MRHD), based on exposure to released PTH by AUC) in rats, the increased bone turnover induced overall net catabolic bone effects. At high dose levels (5-fold the MRHD, based on exposure to released PTH by AUC) in rats, the increased bone turnover resulted in a

net anabolic bone effect. Physeal dysplasia was observed at the highest dose level (9-fold the MRHD, based on exposure to released PTH by AUC) in rats. These effects are of no relevance in a clinical setting where Yorvipath doses are individually adjusted.

There were no cardiovascular findings in monkeys up to and including the highest dose tested in single- (3-fold the MRHD, based on exposure to released PTH by  $C_{max}$ ) or repeat-dose studies (0.98-fold the MRHD, based on exposure to released PTH by  $C_{max}$ ).

Increased occurrence of osteosarcomas has been observed in carcinogenicity studies with short-lived PTH analogues in rats, but there is no evidence of increased risk of osteosarcoma in patients treated with short-lived PTH analogues. No carcinogenicity study has been conducted with palopegteriparatide.

In animal reproduction studies, administration of palopegteriparatide to pregnant rats and rabbits during the period of organogenesis resulted in no evidence of embryo-lethality, foetotoxicity or dysmorphogenesis up to and including the highest doses tested (8- and 7-fold, respectively, the MRHD, based on exposure to released PTH by AUC). Exaggerated PTH pharmacological effects were observed at the highest doses tested in the pregnant rats and rabbits (increased serum calcium levels, decreased body weight, decreased food consumption and/or clinical signs). The exposures at the no observed adverse effect level (NOAEL) for maternal toxicity were 2- and 3- fold the MRHD, based on exposure to released PTH by AUC in pregnant rats and rabbits, respectively. A pre- and postnatal developmental study has not been conducted with palopegteriparatide.

## 6. PHARMACEUTICAL PARTICULARS

## 6.1 List of excipients

Succinic acid Mannitol Metacresol Sodium hydroxide Hydrochloric acid (for pH adjustment) Water for injections

## 6.2 Incompatibilities

In the absence of compatibility studies, this medicinal product must not be mixed with other medicinal products.

## 6.3 Shelf life

3 years.

## After first opening

Store below 30 °C. Keep the pen cap on the pre-filled pen in order to protect from light. Yorvipath must be discarded after 14 days.

## 6.4 Special precautions for storage

Store in a refrigerator (2 °C - 8 °C). Do not freeze. Store in the original package with the pen cap on in order to protect from light.

For storage conditions after first opening of the medicinal product, see section 6.3.

#### 6.5 Nature and contents of container

A cartridge (type 1 glass) with a plunger (halobutyl) and a laminate rubber sheet (halobutyl/isoprene) contained in a pre-filled multidose disposable pen made of polypropylene.

Packs of two pre-filled pens and 30 disposable needles for 28 days of treatment (co-packaged in two inner cartons). Each inner carton contains one pre-filled pen and 15 needles for 14 days of treatment.

Yorvipath 168 micrograms/0.56 mL solution for injection in pre-filled pen

- Each pre-filled pen contains palopegteriparatide equivalent to 168 micrograms of PTH(1-34) in 0.56 mL of solvent.
- Pre-filled pen delivering doses of 6, 9, or 12 micrograms
- The strength colour on the outer carton, pen label and push button is blue

Yorvipath 294 micrograms/0.98 mL solution for injection in pre-filled pen

- Each pre-filled pen contains palopegteriparatide equivalent to 294 micrograms of PTH(1-34) in 0.98 mL of solvent.
- Pre-filled pen, delivering doses of 15, 18, or 21 micrograms
- The strength colour on the outer carton, pen label and push button is orange

#### Yorvipath 420 micrograms/1.4 mL solution for injection in pre-filled pen

- Each pre-filled pen contains palopegteriparatide equivalent to 420 micrograms of PTH(1-34) in 1.4 mL of solvent.
- Pre-filled pen, delivering doses of 24, 27, or 30 micrograms
- The strength colour on the outer carton, pen label and push button is burgundy

#### 6.6 Special precautions for disposal and other handling

#### Dose preparation

A new Yorvipath pen should be taken out of the refrigerator 20 minutes before first opening.

The solution should appear clear, colourless and free of visible particles. Do not inject the medicinal product if it is cloudy, or contains particulate matter.

Each pre-filled pen is for use by a single patient. A pre-filled pen must never be shared between patients, even if the needle is changed.

If a pre-filled pen has been frozen or exposed to heat, it must be discarded.

Every time a pre-filled pen is prepared for administration, a new needle must be attached.

Needles must not be re-used. This may prevent blocked needles, contamination, infection, leakage of solution and inaccurate dosing. The injection needle should be removed after each injection and the pen should be stored without a needle attached. Discard the needles after each injection.

Instructions for the preparation and administration of Yorvipath are given in the package leaflet and instructions for use.

#### Disposal

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

#### 7. MARKETING AUTHORISATION HOLDER

Ascendis Pharma Bone Diseases A/S Tuborg Boulevard 12 DK-2900 Hellerup Denmark

#### 8. MARKETING AUTHORISATION NUMBER(S)

EU/1/23/1766/001 EU/1/23/1766/002 EU/1/23/1766/003

#### 9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 17 November 2023

## 10. DATE OF REVISION OF THE TEXT

Detailed information on this medicinal product is available on the website of the European Medicines Agency https://www.ema.europa.eu/en.

#### ANNEX II

- A. MANUFACTURER(S) RESPONSIBLE FOR BATCH RELEASE
- B. CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE
- C. OTHER CONDITIONS AND REQUIREMENTS OF THE MARKETING AUTHORISATION
- D. CONDITIONS OR RESTRICTIONS WITH REGARD TO THE SAFE AND EFFECTIVE USE OF THE MEDICINAL PRODUCT

## A. MANUFACTURER(S) RESPONSIBLE FOR BATCH RELEASE

Name and address of the manufacturer(s) responsible for batch release

Ascendis Pharma A/S Tuborg Boulevard 12 DK-2900 Hellerup Denmark

## **B.** CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE

Medicinal product subject to restricted medical prescription (see Annex I: Summary of Product Characteristics, section 4.2).

# C. OTHER CONDITIONS AND REQUIREMENTS OF THE MARKETING AUTHORISATION

## • Periodic safety update reports (PSURs)

The requirements for submission of PSURs for this medicinal product are set out in the list of Union reference dates (EURD list) provided for under Article 107c(7) of Directive 2001/83/EC and any subsequent updates published on the European medicines web-portal.

The marketing authorisation holder (MAH) shall submit the first PSUR for this product within 6 months following authorisation.

## D. CONDITIONS OR RESTRICTIONS WITH REGARD TO THE SAFE AND EFFECTIVE USE OF THE MEDICINAL PRODUCT

## • Risk management plan (RMP)

The marketing authorisation holder (MAH) shall perform the required pharmacovigilance activities and interventions detailed in the agreed RMP presented in Module 1.8.2 of the marketing authorisation and any agreed subsequent updates of the RMP.

An updated RMP should be submitted:

- At the request of the European Medicines Agency;
- Whenever the risk management system is modified, especially as the result of new information being received that may lead to a significant change to the benefit/risk profile or as the result of an important (pharmacovigilance or risk minimisation) milestone being reached.

ANNEX III

LABELLING AND PACKAGE LEAFLET

A. LABELLING

## PARTICULARS TO APPEAR ON THE OUTER PACKAGING

## OUTER CARTON Yorvipath 168 micrograms/0.56 mL

#### 1. NAME OF THE MEDICINAL PRODUCT

Yorvipath 168 micrograms/0.56 mL solution for injection in pre-filled pen palopegteriparatide

#### 2. STATEMENT OF ACTIVE SUBSTANCE(S)

Each pre-filled pen contains palopegteriparatide equivalent to 168 micrograms of PTH(1-34) in 0.56 mL of solvent. The concentration based on PTH(1-34) is 0.3 mg/mL.

#### **3.** LIST OF EXCIPIENTS

Excipients: succinic acid, mannitol, metacresol, sodium hydroxide, hydrochloric acid (for pH adjustment) and water for injections. See leaflet for further information.

#### 4. PHARMACEUTICAL FORM AND CONTENTS

#### Solution for injection

For doses of 6, 9 or 12 micrograms only

2 pre-filled pens and 30 disposable needles

Each pen contains 0.56 mL solution and is able to deliver doses of 6, 9 or 12 micrograms

## 5. METHOD AND ROUTE(S) OF ADMINISTRATION

For single patient use only

Read the package leaflets before use Subcutaneous use Open here

#### 6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN

Keep out of the sight and reach of children

## 7. OTHER SPECIAL WARNING(S), IF NECESSARY

## 8. EXPIRY DATE

EXP

Discard each pen 14 days after first use.

## 9. SPECIAL STORAGE CONDITIONS

Before first use: Store in a refrigerator. Do not freeze. Store in the original package with the pen cap on in order to protect from light.

After first use: Store below 30 °C. Keep the pen cap on the pre-filled pen in order to protect from light.

#### 10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE

## 11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER

Ascendis Pharma Bone Diseases A/S Tuborg Boulevard 12 DK-2900 Hellerup

## 12. MARKETING AUTHORISATION NUMBER(S)

EU/1/23/1766/001

## **13. BATCH NUMBER**

Lot

## 14. GENERAL CLASSIFICATION FOR SUPPLY

## **15. INSTRUCTIONS ON USE**

## 16. INFORMATION IN BRAILLE

Yorvipath 168 micrograms/0.56 mL

## **17. UNIQUE IDENTIFIER – 2D BARCODE**

2D barcode carrying the unique identifier included.

## 18. UNIQUE IDENTIFIER - HUMAN READABLE DATA

PC SN NN

## PARTICULARS TO APPEAR ON THE OUTER PACKAGING

## INNER CARTON Yorvipath 168 micrograms/0.56 mL

#### 1. NAME OF THE MEDICINAL PRODUCT

Yorvipath 168 micrograms/0.56 mL solution for injection in pre-filled pen palopegteriparatide

#### 2. STATEMENT OF ACTIVE SUBSTANCE(S)

Each pre-filled pen contains palopegteriparatide equivalent to 168 micrograms of PTH(1-34) in 0.56 mL of solvent. The concentration based on PTH(1-34) is 0.3 mg/mL.

#### **3.** LIST OF EXCIPIENTS

Excipients: succinic acid, mannitol, metacresol, sodium hydroxide, hydrochloric acid (for pH adjustment) and water for injections. See leaflet for further information.

#### 4. PHARMACEUTICAL FORM AND CONTENTS

#### Solution for injection

For doses of 6, 9 or 12 micrograms only

1 pre-filled pen and 15 disposable needles

Each pen contains 0.56 mL solution and is able to deliver doses of 6, 9 or 12 micrograms

## 5. METHOD AND ROUTE(S) OF ADMINISTRATION

For single patient use only

Read the package leaflets before use Subcutaneous use Open here

#### 6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN

Keep out of the sight and reach of children

## 7. OTHER SPECIAL WARNING(S), IF NECESSARY

## 8. EXPIRY DATE

EXP

Open date:

Discard each pen 14 days after first use.

## 9. SPECIAL STORAGE CONDITIONS

Before first use: Store in a refrigerator. Do not freeze. Store in the original package with the pen cap on in order to protect from light.

After first use: Store below 30 °C. Keep the pen cap on the pre-filled pen in order to protect from light.

#### 10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE

## 11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER

Ascendis Pharma Bone Diseases A/S Tuborg Boulevard 12 DK-2900 Hellerup

## 12. MARKETING AUTHORISATION NUMBER(S)

EU/1/23/1766/001

## **13. BATCH NUMBER**

Lot

## 14. GENERAL CLASSIFICATION FOR SUPPLY

## **15. INSTRUCTIONS ON USE**

## 16. INFORMATION IN BRAILLE

Yorvipath 168 micrograms/0.56 mL

## **17. UNIQUE IDENTIFIER – 2D BARCODE**

2D barcode carrying the unique identifier included.

# **18. UNIQUE IDENTIFIER - HUMAN READABLE DATA**

## MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS

PRE-FILLED PEN LABEL Yorvipath 168 micrograms/0.56 mL

## 1. NAME OF THE MEDICINAL PRODUCT AND ROUTE(S) OF ADMINISTRATION

Yorvipath 168 mcg/0.56 mL injection palopegteriparatide SC

## 2. METHOD OF ADMINISTRATION

Subcutaneous use

3. EXPIRY DATE

EXP

## 4. **BATCH NUMBER**

Lot

## 5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT

## 6. OTHER

For doses of 6, 9 or 12 mcg only

## PARTICULARS TO APPEAR ON THE OUTER PACKAGING

## OUTER CARTON Yorvipath 294 micrograms/0.98 mL

#### 1. NAME OF THE MEDICINAL PRODUCT

Yorvipath 294 micrograms/0.98 mL solution for injection in pre-filled pen palopegteriparatide

#### 2. STATEMENT OF ACTIVE SUBSTANCE(S)

Each pre-filled pen contains palopegteriparatide equivalent to 294 micrograms of PTH(1-34) in 0.98 mL of solvent. The concentration based on PTH(1-34) is 0.3 mg/mL.

#### **3.** LIST OF EXCIPIENTS

Excipients: succinic acid, mannitol, metacresol, sodium hydroxide, hydrochloric acid (for pH adjustment) and water for injections. See leaflet for further information.

## 4. PHARMACEUTICAL FORM AND CONTENTS

#### Solution for injection

For doses of 15, 18 or 21 micrograms only

2 pre-filled pens and 30 disposable needles

Each pen contains 0.98 mL solution and is able to deliver doses of 15, 18 or 21 micrograms

## 5. METHOD AND ROUTE(S) OF ADMINISTRATION

For single patient use only

Read the package leaflets before use Subcutaneous use Open here

#### 6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN

Keep out of the sight and reach of children

## 7. OTHER SPECIAL WARNING(S), IF NECESSARY

#### 8. EXPIRY DATE

#### EXP

Discard each pen 14 days after first use.

## 9. SPECIAL STORAGE CONDITIONS

Before first use: Store in a refrigerator. Do not freeze. Store in the original package with the pen cap on in order to protect from light.

After first use: Store below 30 °C. Keep the pen cap on the pre-filled pen in order to protect from light.

#### 10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE

#### 11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER

Ascendis Pharma Bone Diseases A/S Tuborg Boulevard 12 DK-2900 Hellerup

## 12. MARKETING AUTHORISATION NUMBER(S)

EU/1/23/1766/002

## **13. BATCH NUMBER**

Lot

## 14. GENERAL CLASSIFICATION FOR SUPPLY

## **15. INSTRUCTIONS ON USE**

## 16. INFORMATION IN BRAILLE

Yorvipath 294 micrograms/0.98 mL

## **17. UNIQUE IDENTIFIER – 2D BARCODE**

2D barcode carrying the unique identifier included.

# **18. UNIQUE IDENTIFIER - HUMAN READABLE DATA**

PC SN NN

33

## PARTICULARS TO APPEAR ON THE OUTER PACKAGING

## INNER CARTON Yorvipath 294 micrograms/0.98 mL

#### 1. NAME OF THE MEDICINAL PRODUCT

Yorvipath 294 micrograms/0.98 mL solution for injection in pre-filled pen palopegteriparatide

#### 2. STATEMENT OF ACTIVE SUBSTANCE(S)

Each pre-filled pen contains palopegteriparatide equivalent to 294 micrograms of PTH(1-34) in 0.98 mL of solvent. The concentration based on PTH(1-34) is 0.3 mg/mL.

#### **3.** LIST OF EXCIPIENTS

Excipients: succinic acid, mannitol, metacresol, sodium hydroxide, hydrochloric acid (for pH adjustment) and water for injections. See leaflet for further information.

## 4. PHARMACEUTICAL FORM AND CONTENTS

#### Solution for injection

For doses of 15, 18 or 21 micrograms only

1 pre-filled pen and 15 disposable needles

Each pen contains 0.98 mL solution and is able to deliver doses of 15, 18 or 21 micrograms

## 5. METHOD AND ROUTE(S) OF ADMINISTRATION

For single patient use only

Read the package leaflets before use Subcutaneous use Open here

#### 6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN

Keep out of the sight and reach of children

## 7. OTHER SPECIAL WARNING(S), IF NECESSARY

## 8. EXPIRY DATE

EXP

Open date:

Discard each pen 14 days after first use.

## 9. SPECIAL STORAGE CONDITIONS

Before first use: Store in a refrigerator. Do not freeze. Store in the original package with the pen cap on in order to protect from light.

After first use: Store below 30 °C. Keep the pen cap on the pre-filled pen in order to protect from light.

#### 10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE

## 11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER

Ascendis Pharma Bone Diseases A/S Tuborg Boulevard 12 DK-2900 Hellerup

## 12. MARKETING AUTHORISATION NUMBER(S)

EU/1/23/1766/002

## **13. BATCH NUMBER**

Lot

## 14. GENERAL CLASSIFICATION FOR SUPPLY

## **15. INSTRUCTIONS ON USE**

## 16. INFORMATION IN BRAILLE

Yorvipath 294 micrograms/0.98 mL

## **17. UNIQUE IDENTIFIER – 2D BARCODE**

2D barcode carrying the unique identifier included.

# **18. UNIQUE IDENTIFIER - HUMAN READABLE DATA**

## MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS

PRE-FILLED PEN LABEL Yorvipath 294 micrograms/0.98 mL

## 1. NAME OF THE MEDICINAL PRODUCT AND ROUTE(S) OF ADMINISTRATION

Yorvipath 294 mcg/0.98 mL injection palopegteriparatide SC

## 2. METHOD OF ADMINISTRATION

Subcutaneous use

3. EXPIRY DATE

EXP

## 4. **BATCH NUMBER**

Lot

## 5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT

## 6. OTHER

For doses of 15, 18 or 21 mcg only

## PARTICULARS TO APPEAR ON THE OUTER PACKAGING

## OUTER CARTON Yorvipath 420 micrograms/1.4 mL

## 1. NAME OF THE MEDICINAL PRODUCT

Yorvipath 420 micrograms/1.4 mL solution for injection in pre-filled pen palopegteriparatide

#### 2. STATEMENT OF ACTIVE SUBSTANCE(S)

Each pre-filled pen contains palopegteriparatide equivalent to 420 micrograms of PTH(1-34) in 1.4 mL of solvent. The concentration based on PTH(1-34) is 0.3 mg/mL.

#### **3.** LIST OF EXCIPIENTS

Excipients: succinic acid, mannitol, metacresol, sodium hydroxide, hydrochloric acid (for pH adjustment) and water for injections. See leaflet for further information.

## 4. PHARMACEUTICAL FORM AND CONTENTS

#### Solution for injection

For doses of 24, 27 or 30 micrograms only

2 pre-filled pens and 30 disposable needles

Each pen contains 1.4 mL solution and is able to deliver doses of 24, 27 or 30 micrograms

## 5. METHOD AND ROUTE(S) OF ADMINISTRATION

For single patient use only

Read the package leaflets before use Subcutaneous use Open here

#### 6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN

Keep out of the sight and reach of children

## 7. OTHER SPECIAL WARNING(S), IF NECESSARY

## 8. EXPIRY DATE

EXP

Discard each pen 14 days after first use.

## 9. SPECIAL STORAGE CONDITIONS

Before first use: Store in a refrigerator. Do not freeze. Store in the original package with the pen cap on in order to protect from light.

After first use: Store below 30 °C. Keep the pen cap on the pre-filled pen in order to protect from light.

## 10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE

## 11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER

Ascendis Pharma Bone Diseases A/S Tuborg Boulevard 12 DK-2900 Hellerup

## **12. MARKETING AUTHORISATION NUMBER(S)**

EU/1/23/1766/003

## **13. BATCH NUMBER**

Lot

## 14. GENERAL CLASSIFICATION FOR SUPPLY

## **15. INSTRUCTIONS ON USE**

## 16. INFORMATION IN BRAILLE

Yorvipath 420 micrograms/1.4 mL

## **17. UNIQUE IDENTIFIER – 2D BARCODE**

2D barcode carrying the unique identifier included.

## 18. UNIQUE IDENTIFIER - HUMAN READABLE DATA

PC SN NN

## PARTICULARS TO APPEAR ON THE OUTER PACKAGING

## INNER CARTON Yorvipath 420 micrograms/1.4 mL

## 1. NAME OF THE MEDICINAL PRODUCT

Yorvipath 420 micrograms/1.4 mL solution for injection in pre-filled pen palopegteriparatide

#### 2. STATEMENT OF ACTIVE SUBSTANCE(S)

Each pre-filled pen contains palopegteriparatide equivalent to 420 micrograms of PTH(1-34) in 1.4 mL of solvent. The concentration based on PTH(1-34) is 0.3 mg/mL.

#### **3.** LIST OF EXCIPIENTS

Excipients: succinic acid, mannitol, metacresol, sodium hydroxide, hydrochloric acid (for pH adjustment) and water for injections. See leaflet for further information.

## 4. PHARMACEUTICAL FORM AND CONTENTS

#### Solution for injection

For doses of 24, 27 or 30 micrograms only

1 pre-filled pen and 15 disposable needles

Each pen contains 1.4 mL solution and is able to deliver doses of 24, 27 or 30 micrograms

## 5. METHOD AND ROUTE(S) OF ADMINISTRATION

For single patient use only

Read the package leaflets before use Subcutaneous use Open here

#### 6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN

Keep out of the sight and reach of children

## 7. OTHER SPECIAL WARNING(S), IF NECESSARY

## 8. EXPIRY DATE

EXP

Open date:

Discard each pen 14 days after first use.

## 9. SPECIAL STORAGE CONDITIONS

Before first use: Store in a refrigerator. Do not freeze. Store in the original package with the pen cap on in order to protect from light.

After first use: Store below 30 °C. Keep the pen cap on the pre-filled pen in order to protect from light.

#### 10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE

## 11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER

Ascendis Pharma Bone Diseases A/S Tuborg Boulevard 12 DK-2900 Hellerup

## 12. MARKETING AUTHORISATION NUMBER(S)

EU/1/23/1766/003

## **13. BATCH NUMBER**

Lot

## 14. GENERAL CLASSIFICATION FOR SUPPLY

## **15. INSTRUCTIONS ON USE**

## 16. INFORMATION IN BRAILLE

Yorvipath 420 micrograms/1.4 mL

## **17. UNIQUE IDENTIFIER – 2D BARCODE**

2D barcode carrying the unique identifier included.

# **18. UNIQUE IDENTIFIER - HUMAN READABLE DATA**

## MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS

PRE-FILLED PEN LABEL Yorvipath 420 micrograms/1.4 mL

## 1. NAME OF THE MEDICINAL PRODUCT AND ROUTE(S) OF ADMINISTRATION

Yorvipath 420 mcg/1.4 mL injection palopegteriparatide SC

## 2. METHOD OF ADMINISTRATION

Subcutaneous use

#### 3. EXPIRY DATE

EXP

## 4. BATCH NUMBER

Lot

## 5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT

## 6. OTHER

For doses of 24, 27 or 30 mcg only

**B. PACKAGE LEAFLET** 

## Package leaflet: Information for the patient

## Yorvipath 168 micrograms/0.56 mL solution for injection in pre-filled pen Yorvipath 294 micrograms/0.98 mL solution for injection in pre-filled pen Yorvipath 420 micrograms/1.4 mL solution for injection in pre-filled pen palopegteriparatide

This medicine is subject to additional monitoring. This will allow quick identification of new safety information. You can help by reporting any side effects you may get. See the end of section 4 for how to report side effects.

# Read all of this leaflet carefully before you start using this medicine because it contains important information for you.

- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor or pharmacist.
- This medicine has been prescribed for you only. Do not pass it on to others. It may harm them, even if their signs of illness are the same as yours.
- If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. See section 4.

## What is in this leaflet

- 1. What Yorvipath is and what it is used for
- 2. What you need to know before you use Yorvipath
- 3. How to use Yorvipath
- 4. Possible side effects
- 5. How to store Yorvipath
- 6. Contents of the pack and other information

## 1. What Yorvipath is and what it is used for

Yorvipath contains the active substance palopegteriparatide. Palopegteriparatide is changed into teriparatide, also called parathyroid hormone (PTH), in the body. PTH naturally occurs in the body and is needed to keep the amount of calcium and phosphate in your body within the normal range.

Yorvipath is used to treat chronic hypoparathyroidism in adults. In people with hypoparathyroidism, the body produces no or too little PTH. Because of this, they cannot keep the levels of calcium and phosphate within a normal range, and this leads to the symptoms of the condition, such as muscle spasms, twitching, and tingling in your fingertips, toes and lips. Yorvipath replaces the missing PTH to help control the levels of calcium and phosphate.

## 2. What you need to know before you use Yorvipath

#### Do not use Yorvipath

- if you are allergic to palopegteriparatide or any of the other ingredients of this medicine (listed in section 6)
- if you have pseudohypoparathyroidism, a condition in which the body does not adequately respond to the parathyroid hormone produced by the body

## Warnings and precautions

Talk to your doctor, pharmacist or nurse before using Yorvipath.

If you are treated with Yorvipath, you may have side effects related to low or high levels of calcium in your blood (see section 4 for more information). These effects are more likely to occur when starting

treatment or when changing the dose. Your doctor will check your calcium levels (see 'Tests and checks' in section 3). You may be given medicines to treat or help prevent these side effects, or your doctor may change your dose.

High levels of calcium in your blood can cause problems if you take medicines that contain cardiac glycosides (such as digoxin or digitoxin) (see 'Other medicines and Yorvipath'). Your doctor will check your calcium (see 'Tests and checks' in section 3) and glycoside levels and monitor you for signs and symptoms.

If you take Yorvipath and have severe kidney or liver impairment, your doctor will check your calcium more often (see 'Tests and checks' in section 3).

Tell your doctor if you are at higher risk of a type of bone cancer called osteosarcoma. This is especially important:

- if you are having or have had radiation therapy to the skeleton
- if you have cancer of the bones or other cancer that has spread to your bones
- if you have a bone disease that increases your risk of developing osteosarcoma (for instance, if you have Paget's disease)
- if a blood test shows that you have unexplained increases in bone alkaline phosphatase

If you are at risk for bone fractures, your doctor will check you for osteoporosis.

#### Children and adolescents

Yorvipath should not be used in children or adolescents under 18 years old because it has not been studied in this age group.

#### Other medicines and Yorvipath

Tell your doctor, pharmacist or nurse if you are using, have recently used, or might use any other medicines. In particular, tell your doctor if you are using or have recently used any of the following:

- Heart medicines that contain cardiac glycosides (such as digoxin or digitoxin)
- Medicines used to treat osteoporosis, such as bisphosphonates, denosumab, or romosozumab
- Medicines that can affect calcium levels in your blood, such as diuretics ('water tablets', such as hydrochloride thiazide or furosemide), systemic corticosteroids (medicines used to treat inflammation), and lithium (medicine used to treat mood disorders)

Your doctor may need to adjust the dose of these medicines or the dose of Yorvipath.

#### Pregnancy, breast-feeding and fertility

If you are pregnant or breast-feeding, think you may be pregnant or are planning to have a baby, ask your doctor or pharmacist for advice before taking this medicine.

#### Pregnancy

If you think you may be pregnant or are planning to have a baby, talk to your doctor. If you become pregnant during treatment, talk to your doctor immediately.

There is limited information on the safety of Yorvipath in pregnant women. Your doctor will decide whether you should be treated with Yorvipath during pregnancy. If you are pregnant or planning to become pregnant your doctor may check your calcium levels.

#### Breast-feeding

If you are breast-feeding or intend to breast-feed, ask your doctor for advice before using Yorvipath. Your doctor will decide whether you should be treated with Yorvipath during breast-feeding. If you are breast-feeding, your doctor may check your calcium levels.

## Fertility

It is not known if Yorvipath has effects on fertility.

## Driving and using machines

Yorvipath has no or very minor effects on your ability to drive or use machines. However, if you experience dizziness, fainting or light-headedness when standing up, do not drive or use machines until you feel better.

#### Yorvipath contains sodium

This medicine contains less than 1 mmol sodium (23 mg) per dose, that is to say essentially 'sodium-free'.

## 3. How to use Yorvipath

Always use this medicine exactly as your doctor or nurse has told you. Check with your doctor if you are not sure.

Yorvipath is given as an injection under the skin (subcutaneous injection). This means that it is injected with a short needle into the fatty tissue under the skin. The medicine should be injected into the belly (abdomen) or front of the thigh, and it is important to inject into a different area every day to help avoid damaging your skin. You can change between the left and right side of the belly and between the left and right front of the thigh.

Before you use the pen for the first time, your doctor, pharmacist or nurse will show you how to inject Yorvipath. Additional help with using Yorvipath is provided in the **instructions for use** at the end of this leaflet.

You should always use the pen as described in the instructions for use.

## Starting, changing dose, and maintenance of Yorvipath

Your doctor will do a blood test to check your calcium and vitamin D levels before you start treatment with Yorvipath.

The recommended starting dose of Yorvipath is 18 micrograms once daily. Your doctor may advise you to gradually change your dose based on your response to the medicine, until you are using a dose that keeps the amount of calcium in your body within the normal range without the need for active vitamin D or therapeutic doses of calcium. Your doctor may tell you to keep taking daily calcium supplementation to meet dietary requirements. Your dose may be increased if at least 7 days have passed since your last change in dose. Your dose may be decreased no more often than every 3 days when the level of calcium in your body is too high.

## Tests and checks

Your doctor will check how you respond to the treatment:

- 7 days after starting treatment and
- 7 to 14 days after your dose is changed

This will be done using tests to measure the level of calcium in your blood or urine. Your doctor may tell you to change the amount of calcium or vitamin D you take (in any form, including foods rich in calcium).

#### Directions for use

If your dose is above 30 micrograms per day:

• Administer two injections, one after the other, in separate injection sites.

- It is recommended to use a different Yorvipath pen for the second daily injection, even if the two pens have the same-coloured push button (same strength).
- The table below explains how to administer your dose. Check with your doctor if you are not sure.

Dose	Dosing scheme	Which pen to use?
33 micrograms/day	15 micrograms/day +	
	18 micrograms/day	
36 micrograms/day	18 micrograms/day	First injection with Yorvipath 294 micrograms/0.98 mL
50 merograms/day	18 micrograms/day	pen (with orange push button)
39 micrograms/day	18 micrograms/day	Second injection with Yorvipath 294 micrograms/0.98 mL
59 micrograms/day	21 micrograms/day	pen (with orange push button)
42 miono anomo /day	21 micrograms/day	
42 micrograms/day	21 micrograms/day	
45 micrograms/day	21 micrograms/day +	First injection with Yorvipath 294 micrograms/0.98 mL pen (with orange push button) +
	24 micrograms/day	Second injection with Yorvipath 420 micrograms/1.4 mL pen (with burgundy push button)
48 micrograms/day	24 micrograms/day	
48 Incrograms/day	24 micrograms/day	
51 micrograms/day	24 micrograms/day	
51 merograms/day	27 micrograms/day	First injection with Yorvipath 420 micrograms/1.4 mL pen
54 micrograms/day	27 micrograms/day	(with burgundy push button) +
54 micrograms/day	27 micrograms/day	Second injection with Yorvipath 420 micrograms/1.4 mL pen (with burgundy push button)
57	27 micrograms/day	
57 micrograms/day	+ 30 micrograms/day	
<u>()</u>	30 micrograms/day	
60 micrograms/day	30 micrograms/day	

#### Recommended scheme for Yorvipath dosing above 30 micrograms/day

Yorvipath 294 micrograms/0.98 mL pen delivers doses of 15, 18, or 21 micrograms (with orange push button) Yorvipath 420 micrograms/1.4 mL pen delivers doses of 24, 27, or 30 micrograms (with burgundy push button)

## If you use more Yorvipath than you should

Immediately contact your doctor or nurse and describe any symptoms you get.

An overdose may lead to high levels of calcium in the blood. Symptoms may include but are not limited to being sick (vomiting), dizziness, feeling thirsty, confusion, muscle weakness, and irregular heartbeat. See section 4 for more information.

## If you forget to use Yorvipath

If you forget to inject a dose of Yorvipath, you can use the medicine as soon as you remember if less than 12 hours have passed. For example, if you normally inject the medicine at 8 o'clock in the morning, you can inject the missed dose before 8 o'clock in the evening.

If you only remember to use your dose within 12 hours of your next planned dose, skip the missed dose and continue injecting your next dose as you normally would. For example, if you remember at 10 o'clock in the evening that you forgot to inject Yorvipath, and your next dose is planned at 8 o'clock in the morning, you should not inject the missed dose.

Never take a second dose to make up for a missed dose.

## If you stop using Yorvipath

Do not stop using Yorvipath without talking to your doctor. If you stop using Yorvipath the levels of calcium in your blood may decrease and you may develop the symptoms described below (see section 4).

If you have any further questions on the use of Yorvipath, ask your doctor or nurse.

## 4. **Possible side effects**

Like all medicines, this medicine can cause side effects, although not everybody gets them.

#### Some side effects could be considered serious

Common serious side effects (may affect up to 1 in 10 people):

- High levels of calcium in the blood (hypercalcaemia)
  - Symptoms may include, but are not limited to, being sick (vomiting), dizziness, feeling thirsty, confusion, muscle weakness, and irregular heartbeat.
  - Hypercalcaemia is more likely to occur within the first 3 months of starting treatment or if you change your Yorvipath dose.
- Low levels of calcium in the blood (hypocalcaemia)
  - Symptoms may include, but are not limited to, tingling in your fingertips, toes and lips (paraesthesia), muscle spasms and cramps, oral numbness, and seizures.
  - Hypocalcaemia is more likely to occur if you stop taking Yorvipath for a short time or altogether, or if you change your Yorvipath dose.

Tell your doctor immediately if you experience any of the above-mentioned symptoms that may be a sign of these side effects. Your doctor will check your calcium levels. You may need to change your Yorvipath dose or stop the injections for a short time. You may be given medicines to treat or help prevent these side effects, or you may be asked to stop some of the medicines you are taking. These medicines include calcium or vitamin D. You may be asked to have some laboratory tests.

## Other side effects include:

Very common side effects (may affect more than 1 in 10 people)

- Headache
- Tingling in your fingertips, toes and lips (paraesthesia)
- Feeling sick (nausea)
- Feeling tired (fatigue)
- Redness, bruising, pain, bleeding, rash or swelling where you injected the medicine (injection site reactions)

#### **Common side effects** (may affect up to 1 in 10 people)

• Feeling like your heart is fluttering or beating too fast (palpitations)

- Dizziness
- Feeling you are about to faint (pre-syncope)
- Fainting (syncope)
- Dizziness, lightheadedness or fainting when you sit up or stand up (orthostatic hypotension)
- Dizziness, lightheadedness or fainting and increased heart rate when you sit up or stand up (postural orthostatic tachycardia syndrome)
- Sore mouth or sore throat (oropharyngeal pain)
- Diarrhoea
- Constipation
- Being sick (vomiting)
- Abdominal pain
- Abdominal discomfort
- Joint pain (arthralgia)
- Muscle pain (myalgia)
- Weakness (asthenia)
- Thirst
- Rash
- Skin reaction to sunlight (photosensitivity reaction)
- The need to pass urine at night (nocturia)
- Muscle twitching
- Pain in the muscles and bones (musculoskeletal pain)

#### Uncommon side effects (may affect up to 1 in 100 people)

- Chest pain
- Chest discomfort
- High blood pressure (hypertension)

Not known (Frequency cannot be estimated from the available data)

- The need to pass urine often (polyuria)
- Bone density decreased

If you get any side effects or any symptoms that concern you, tell your doctor or nurse.

#### **Reporting of side effects**

If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via the national reporting system listed in <u>Appendix V</u>. By reporting side effects you can help provide more information on the safety of this medicine.

#### 5. How to store Yorvipath

Keep this medicine out of the sight and reach of children.

Do not use this medicine after the expiry date which is stated on the carton after EXP. The expiry date refers to the last day of that month.

Before first use: Store in a refrigerator (2 °C - 8 °C). Do not freeze. Store in the original package with the pen cap on in order to protect from light.

After first use: Store below 30 °C. Keep the pen cap on the pre-filled pen in order to protect from light. Discard each pen 14 days after first use. Do not use this medicine if you notice that the solution is cloudy, coloured, or has visible particles in it.

Do not throw away any medicines via wastewater or household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help protect the environment.

#### 6. Contents of the pack and other information

#### What Yorvipath contains

- The active substance is palopegteriparatide.
- The excipients are succinic acid, mannitol, metacresol, sodium hydroxide (see section 2, "Yorvipath contains sodium"), hydrochloric acid (for pH adjustment), and water for injections.

Yorvipath is a solution for subcutaneous injections in a pre-filled pen available in three presentations:

#### Yorvipath 168 micrograms/0.56 mL

Each pre-filled pen contains palopegteriparatide equivalent to 168 micrograms of PTH(1-34) in 0.56 mL of solvent. The concentration based on PTH(1-34) is 0.3 mg/mL.

#### Yorvipath 294 micrograms/0.98 mL

Each pre-filled pen contains palopegteriparatide equivalent to 294 micrograms of PTH(1-34) in 0.98 mL of solvent. The concentration based on PTH(1-34) is 0.3 mg/mL.

#### Yorvipath 420 micrograms/1.4 mL

Each pre-filled pen contains palopegteriparatide equivalent to 420 micrograms of PTH(1-34) in 1.4 mL of solvent. The concentration based on PTH(1-34) is 0.3 mg/mL.

#### What Yorvipath looks like and contents of the pack

Yorvipath is a clear and colourless solution free of particles for injection in a pre-filled pen. The outer carton contains two pre-filled pens and 30 disposable needles for 28 days of treatment (co-packaged in two inner cartons). Each inner carton contains one pre-filled pen and 15 needles for 14 days of treatment (14 needles for each day of treatment and 1 spare needle).

Strength colours are indicated on the outer and inner cartons, on the label and push button of the pre-filled pen, as follows:

Colour	Presentation
Blue	Yorvipath 168 micrograms/0.56 mL
Orange	Yorvipath 294 micrograms/0.98 mL
Burgundy	Yorvipath 420 micrograms/1.4 mL

#### Marketing Authorisation Holder

Ascendis Pharma Bone Diseases A/S Tuborg Boulevard 12 DK-2900 Hellerup Denmark

# Manufacturer

Ascendis Pharma A/S

Tuborg Boulevard 12 DK-2900 Hellerup Denmark

#### This leaflet was last revised in .

## Other sources of information

Detailed information on this medicine is available on the European Medicines Agency web site: https://www.ema.europa.eu/en. There are also links to other websites about rare diseases and treatments.

This leaflet is available in all EU/EEA languages on the European Medicines Agency website.

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#### **INSTRUCTIONS FOR USE**

Yorvipath

168 micrograms/0.56 mL

For doses of 6, 9 or 12 micrograms only

## Solution for injection in pre-filled pen

palopegteriparatide

For subcutaneous use

This instructions for use contains information on how to inject Yorvipath

Yorvipath <sup>•</sup>	
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#### Additional information

If you do not understand or are unable to complete a step that is described in this instructions for use, contact your doctor or nurse.

#### **Marketing Authorisation Holder**

Ascendis Pharma Bone Diseases A/S Tuborg Boulevard 12 DK-2900 Hellerup Denmark

This instructions for use was last revised in .

## Important information you need to know before using your Yorvipath pen

Read and follow the package leaflet and these instructions for use carefully so that you inject Yorvipath the right way.

Make sure you have received training from your doctor or nurse before injecting. This is important to make sure that you get the correct treatment.

## For correct use

- By failing to follow these instructions, you may not get the right dose, and may therefore not get the full effect of your medicine.
- If you are blind or visually impaired or if you have lack of concentration, **do not** use your pen without help. Instead get help from a person who is trained to use the Yorvipath pen.
- Keep out of the sight and reach of children.
- The pen and needles are for single-patient use only.
- **Do not** share your pen or needles with other people. It might lead to infection (cross-contamination).
- Always throw away your pen **after 14 days of use**, even if it still has medicine left inside. This is important to make sure that you get the right effect of your medicine.
- Always use the needles that come with the Yorvipath pen for your injections.
- Remove the needle after every use. **Do not** store the pen with the needle on.
- Avoid bending or breaking off the pen needle.
- **Do not** change the injection angle after the needle has been inserted into the skin. Changing the angle can cause the needle to bend or break off. A bent or broken needle can remain stuck in the body or remain completely under the skin. If a broken needle remains stuck in the body or remains under the skin, seek medical help right away.
- **Do not** use needles if the needle cover or needle foil are damaged.

## Storing your pen

Before first use:

- Store in a refrigerator (2 °C 8 °C).
- Do not freeze.
- Store in the original package with the pen cap on in order to protect from light.

After first use:

- Store below 30 °C.
- Keep the pen cap on the pre-filled pen in order to protect from light.
- Discard each pen 14 days after first use.

## Caring for your pen

- Handle your pen with care.
- Keep your pen dry.
- Use a moist cloth to clean your pen.
- **Do not** drop or knock your pen against hard surfaces. If you do, test the pen flow again (section 2, steps A C) before next use.
- **Do not** apply extra force to your pen. It might be empty, damaged and no longer work properly.
- **Do not** attempt to repair a damaged pen yourself.
- Never use a damaged pen.

## Troubleshooting

## 1. How often must I test the pen flow?

You should only test the pen flow (section 2) the first time you use a new pen (or if you think it might be damaged) to not waste medicine. The test checks to make sure the medicine flows through the pen so that you get the right doses of medicine.

## 2. I do not see drops appear after I have tested the pen flow 5 times. What should I do?

If you see no drop on the needle tip after **5 attempts**, it might be because there is no flow through the pen and needle.

Change the needle (see section 5, step 13) and test the pen flow again (see section 2, steps A - C). You can be sure the flow works correctly when you see the drop of medicine. If it still does not work discard the pen and contact your health care provider.

## 3. How do I know I have completed the injection?

Your injection is only completed after you have pressed the push button all the way in and the dose selector has rotated back to the "•" and you have kept the needle in the skin for **5 seconds**.

## 4. Why do I have to keep holding the pen in the skin for 5 seconds?

Some medicine might flow back into the pen or flow backward from the injection site and be left on the skin. Holding the pen in the skin for **5 seconds** helps to make sure that all the medicine has been injected.

## 5. I cannot dial the dose selector to the required dose. What should I do?

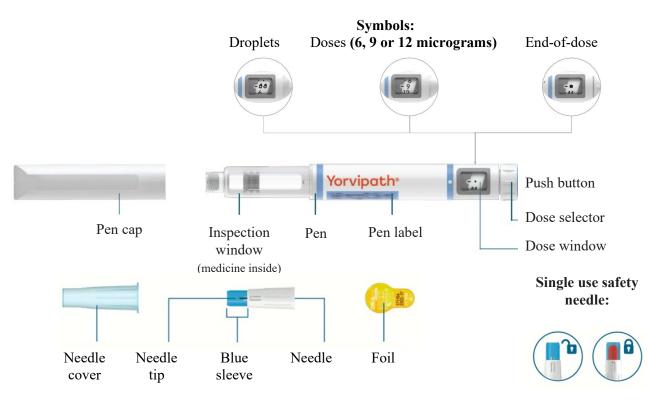
The pen does not allow a larger dose to be set than what is left in the pen. If your dose is larger than the amount of medicine left in the pen you will not be able to dial a full dose. You must throw away your pen and take the full dose of medicine with a new pen.

## 6. The red lock covers the needle before I start injection. What should I do?

Unscrew and throw away the needle in use (see section 5, step 13). Take a new needle from the box and start again from step 1. Every box contains an extra needle.

## Parts overview

## **Figure A**



Note: There is no medicine inside the needle.

## You will also need

**Figure B** 





Sharps disposal Alcohol wipe container

1 Prepare pen and needle	
Step 1	Figure C
Take your Yorvipath pen. Make sure it is the correct strength and check the <b>expiry date</b> . Take a needle and check the <b>expiry date</b> on	Expiry date
the needle (figure C).	UK:
<b>Note:</b> Take your pen out of the refrigerator 20 minutes before first use.	
Step 2	Figure D
Pull off the pen cap and check the inspection window to make sure the medicine inside the pen is clear and colourless (figure D).	Medicine OK?
<b>Important:</b> If the medicine has visible particles in it <b>do not</b> use the pen. Use a new pen.	
Step 3	Figure E
Pull the foil off the needle (figure E). This needle can only be used <b>1 time</b> and locks after use.	
Always use a new needle for each injection.	
Step 4	Figure F
Click the needle <b>straight</b> onto your pen, then screw the needle onto the pen until secure (it will not tighten all the way) (figure F).	click!
Step 5	Figure G
Pull off the needle cover (figure G) and throw it away.	
<b>Important:</b> The blue sleeve must not be touched as it may lock the needle.	

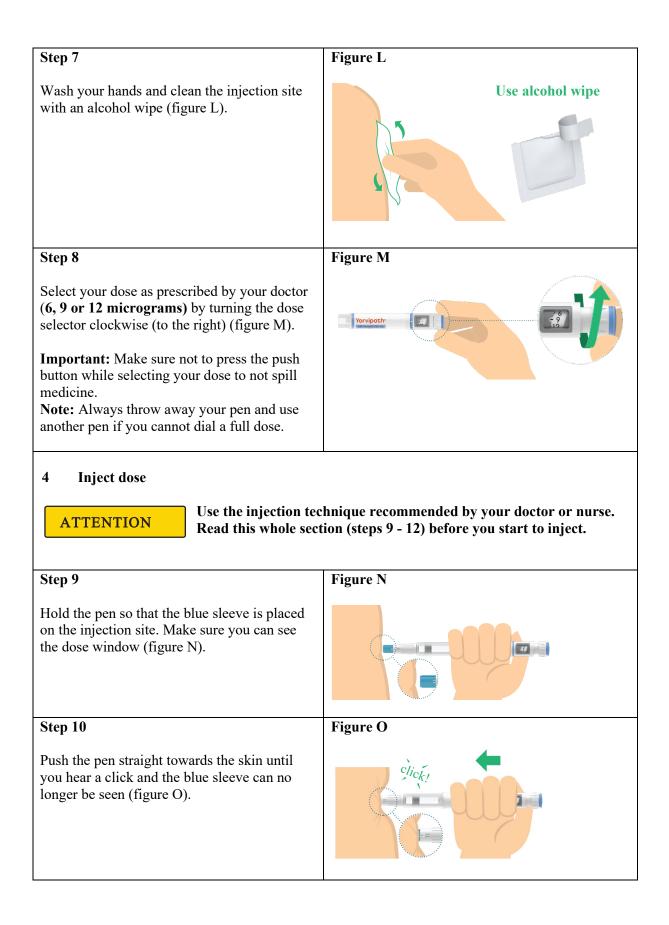
## 2 If new pen, test pen flow



ATTENTION

Only test pen flow (steps A - C) the first time you use a new pen. If your pen is already in use, go to section "3 Prepare injection and select dose".

<ul> <li>Step A</li> <li>Turn the dose selector clockwise (to the right)</li> <li>2 clicks until you see the droplet symbol "oo" in the dose window (figure H).</li> <li>Note: You can always correct the selection by turning the dose selector.</li> </ul>	Figure H
Step B         Make any air bubbles rise to the top of the pen by tapping the inspection window (figure I).         Keep the pen with the needle tip pointed up.         Note: Tiny air bubbles are ok.	Figure I
<ul> <li>Step C</li> <li>Press the push button and watch drops of medicine come out of the needle tip. When you press, make sure that the dose selector rotates back to the symbol "•" (figure J).</li> <li>Important: If you do not see drops of medicine, repeat this test (steps A - C) up to 5 times. If drops are still not seen, change the needle and repeat the test.</li> </ul>	Figure J
<b>3</b> Prepare injection and select dose	
<ul> <li>Step 6</li> <li>Choose injection site. There are two regions of your body you can inject into (figure K).</li> <li>Avoid injecting where skin is red, swollen or scarred.</li> <li>Choose a different injection site each time you inject.</li> </ul>	Figure K Belly (abdomen) at least 5 centimetres away from the navel Front of the thighs



Step 11	Figure P
Press the push button all the way in and hold steady for <b>5 seconds</b> . Make sure the dose selector rotates back to the symbol "•". This means that you have given the full dose (figure P).	Press then hold 5 seconds
Step 12	Figure Q
Slowly remove the pen from the injection site. The blue sleeve automatically locks around the needle and a red lock is seen (figure Q).	
5 Throw away used needle	L
Step 13	Figure R
Unscrew the needle and throw away the needle safely in accordance with local regulations (figure R). <b>Do not</b> attempt to recap the needle as you could poke yourself on the back end.	Yorv'the
Step 14	Figure S
Click the pen cap firmly onto the pen to protect it between injections and to protect the medicine from light (figure S).	Yorv' the click!
6 Throw away used pen	Day 14
<b>Important:</b> Always throw away the pen 14 days after first use according to local regulations. It is recommended to fill out the 'Open date:' field on the inner carton, in order to know when 14 days has passed. Always throw away your pen and any extra needles after <b>14 days of use</b> , even if it still has medicine inside (figure T). This is important to make sure that you get the full effect of your medicine.	Figure T

#### **INSTRUCTIONS FOR USE**

Yorvipath

294 micrograms/0.98 mL

For doses of 15, 18 or 21 micrograms only

Solution for injection in pre-filled pen

palopegteriparatide

For subcutaneous use

This instructions for use contains information on how to inject Yorvipath

Yorvipath®	
The second California	

#### Additional information

If you do not understand or are unable to complete a step that is described in this instructions for use, contact your doctor or nurse.

## **Marketing Authorisation Holder**

Ascendis Pharma Bone Diseases A/S Tuborg Boulevard 12 DK-2900 Hellerup Denmark

This instructions for use was last revised in .

## Important information you need to know before using your Yorvipath pen

Read and follow the package leaflet and these instructions for use carefully so that you inject Yorvipath the right way.

Make sure you have received training from your doctor or nurse before injecting. This is important to make sure that you get the correct treatment.

## For correct use

- By failing to follow these instructions, you may not get the right dose, and may therefore not get the full effect of your medicine.
- If you are blind or visually impaired or if you have lack of concentration, **do not** use your pen without help. Instead get help from a person who is trained to use the Yorvipath pen.
- Keep out of the sight and reach of children.
- The pen and needles are for single-patient use only.
- **Do not** share your pen or needles with other people. It might lead to infection (cross-contamination).
- Always throw away your pen **after 14 days of use**, even if it still has medicine left inside. This is important to make sure that you get the right effect of your medicine.
- Always use the needles that come with the Yorvipath pen for your injections.
- Remove the needle after every use. **Do not** store the pen with the needle on.
- Avoid bending or breaking off the pen needle.
- **Do not** change the injection angle after the needle has been inserted into the skin. Changing the angle can cause the needle to bend or break off. A bent or broken needle can remain stuck in the body or remain completely under the skin. If a broken needle remains stuck in the body or remains under the skin, seek medical help right away.
- **Do not** use needles if the needle cover or needle foil are damaged.

## Special instructions for doses larger than 30 micrograms/day

If your dose is above 30 micrograms/day:

- Administer two injections, one after the other, in separate injection sites (see table with recommended scheme in section 3 of Package leaflet).
- It is recommended to use a different Yorvipath pen for the second daily injection, even if the two pens have the same-coloured push button (same strength).
- Follow the steps in the instructions for use for each injection.

## Storing your pen

Before first use:

- Store in a refrigerator (2 °C 8 °C).
- Do not freeze.
- Store in the original package with the pen cap on in order to protect from light.

After first use:

- Store below 30 °C.
- Keep the pen cap on the pre-filled pen in order to protect from light.
- Discard each pen 14 days after first use.

## Caring for your pen

- Handle your pen with care.
- Keep your pen dry.
- Use a moist cloth to clean your pen.

- **Do not** drop or knock your pen against hard surfaces. If you do, test the pen flow again (section 2, steps A C) before next use.
- **Do not** apply extra force to your pen. It might be empty, damaged and no longer work properly.
- **Do not** attempt to repair a damaged pen yourself.
- Never use a damaged pen.

## Troubleshooting

## 1. How often must I test the pen flow?

You should only test the pen flow (section 2) the first time you use a new pen (or if you think it might be damaged) to not waste medicine. The test checks to make sure the medicine flows through the pen so that you get the right doses of medicine.

## 2. I do not see drops appear after I have tested the pen flow 5 times. What should I do?

If you see no drop on the needle tip after **5 attempts**, it might be because there is no flow through the pen and needle.

Change the needle (see section 5, step 13) and test the pen flow again (see section 2, steps A - C). You can be sure the flow works correctly when you see the drop of medicine. If it still does not work discard the pen and contact your health care provider.

## 3. How do I know I have completed the injection?

Your injection is only completed after you have pressed the push button all the way in and the dose selector has rotated back to the "•" and you have kept the needle in the skin for **5 seconds**.

## 4. Why do I have to keep holding the pen in the skin for 5 seconds?

Some medicine might flow back into the pen or flow backward from the injection site and be left on the skin. Holding the pen in the skin for **5 seconds** helps to make sure that all the medicine has been injected.

## 5. I cannot dial the dose selector to the required dose. What should I do?

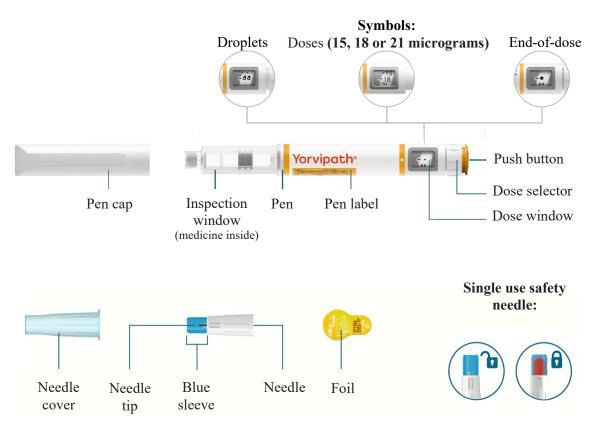
The pen does not allow a larger dose to be set than what is left in the pen. If your dose is larger than the amount of medicine left in the pen you will not be able to dial a full dose. You must throw away your pen and take the full dose of medicine with a new pen.

## 6. The red lock covers the needle before I start injection. What should I do?

Unscrew and throw away the needle in use (see section 5, step 13). Take a new needle from the box and start again from step 1. Every box contains an extra needle.

#### Parts overview

## Figure A



Note: There is no medicine inside the needle.

## You will also need

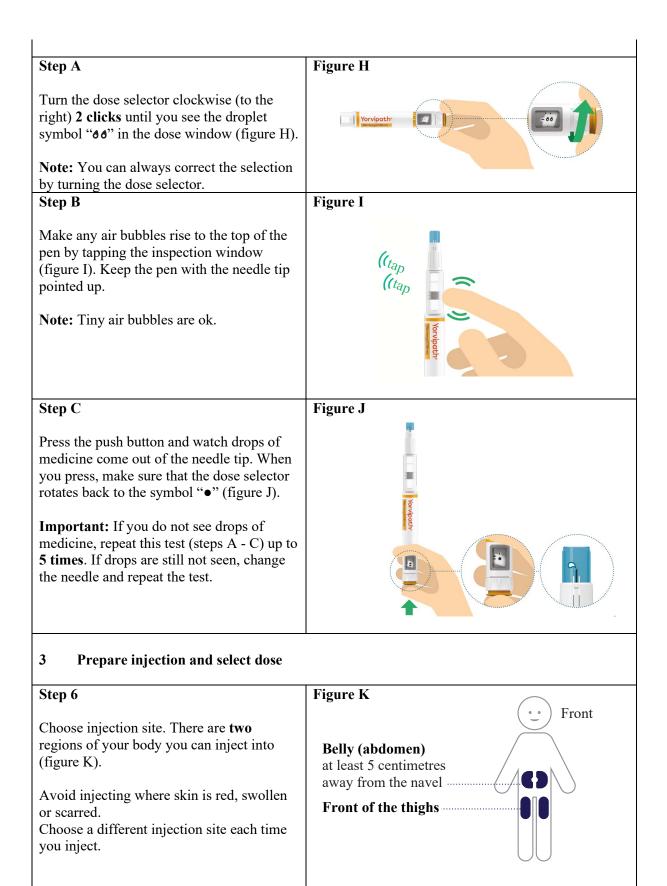
## **Figure B**

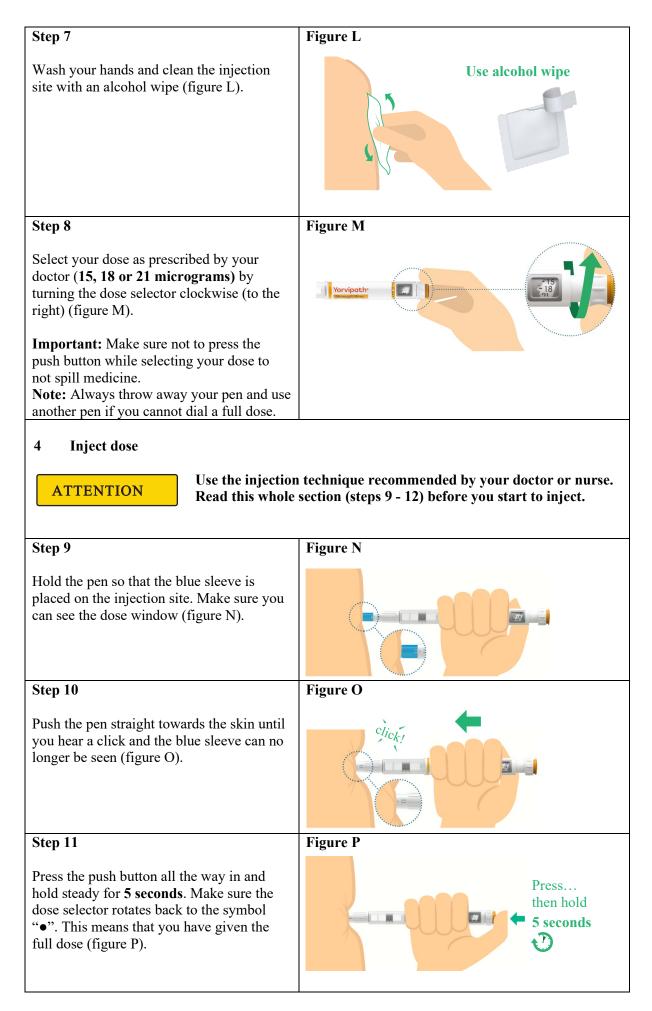


Sharps disposal container

Alcohol wipe

1 Prepare pen and needle		
Step 1	Figure C	
Take your Yorvipath pen. Make sure it is the correct strength and check the <b>expiry date</b> .	Expiry date	
Take a needle and check the <b>expiry date</b> on the needle (figure C).	OK?	
<b>Note:</b> Take your pen out of the refrigerator 20 minutes before first use.		
Step 2	Figure D	
Pull off the pen cap and check the inspection window to make sure the medicine inside the pen is clear and colourless (figure D).	Medicine OK?	
<b>Important:</b> If the medicine has visible particles in it <b>do not</b> use the pen. Use a new pen.		
Step 3	Figure E	
<ul><li>Pull the foil off the needle (figure E).</li><li>This needle can only be used 1 time and locks after use.</li><li>Always use a new needle for each injection.</li></ul>		
Step 4	Figure F	
Click the needle <b>straight</b> onto your pen, then screw the needle onto the pen until secure (it will not tighten all the way) (figure F).	click!	
Step 5	Figure G	
Pull off the needle cover (figure G) and throw it away.		
<b>Important:</b> The blue sleeve must not be touched as it may lock the needle.		
2 If new pen, test pen flow	Day 1	
<b>ATTENTION</b> Only test pen flow (steps A - C) the first time you use a new pen. If your pen is already in use, go to section "3 Prepare injection and select dose".		





Step 12	Figure Q
Slowly remove the pen from the injection site. The blue sleeve automatically locks around the needle and a red lock is seen (figure Q).	
5 Throw away used needle	
Step 13	Figure R
Unscrew the needle and throw away the needle safely in accordance with local regulations (figure R). <b>Do not</b> attempt to recap the needle as you could poke yourself on the back end.	Yorv' the
Step 14	Figure S
Click the pen cap firmly onto the pen to protect it between injections and to protect the medicine from light (figure S).	Yorv' the Click!
6 Throw away used pen	Day 14
<b>Important:</b> Always throw away the pen 14 days after first use according to local regulations. It is recommended to fill out the 'Open date:' field on the inner carton, in order to know when 14 days has passed. Always throw away your pen and any extra needles after <b>14 days of use</b> , even if it still has medicine inside (figure T). This is important to make sure that you get the full effect of your medicine.	Figure T

#### **INSTRUCTIONS FOR USE**

Yorvipath

#### 420 micrograms/1.4 mL

For doses of 24, 27 or 30 micrograms only

## Solution for injection in pre-filled pen

palopegteriparatide

For subcutaneous use

This instructions for use contains information on how to inject Yorvipath

	Yorvipath	•
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## Additional information

If you do not understand or are unable to complete a step that is described in this instructions for use, contact your doctor or nurse.

#### **Marketing Authorisation Holder**

Ascendis Pharma Bone Diseases A/S Tuborg Boulevard 12 DK-2900 Hellerup Denmark

This instructions for use was last revised in .

## Important information you need to know before using your Yorvipath pen

Read and follow the package leaflet and these instructions for use carefully so that you inject Yorvipath the right way.

Make sure you have received training from your doctor or nurse before injecting. This is important to make sure that you get the correct treatment.

## For correct use

- By failing to follow these instructions, you may not get the right dose, and may therefore not get the full effect of your medicine.
- If you are blind or visually impaired or if you have lack of concentration, **do not** use your pen without help. Instead get help from a person who is trained to use the Yorvipath pen.
- Keep out of the sight and reach of children.
- The pen and needles are for single-patient use only.
- **Do not** share your pen or needles with other people. It might lead to infection (cross-contamination).
- Always throw away your pen **after 14 days of use**, even if it still has medicine left inside. This is important to make sure that you get the right effect of your medicine.
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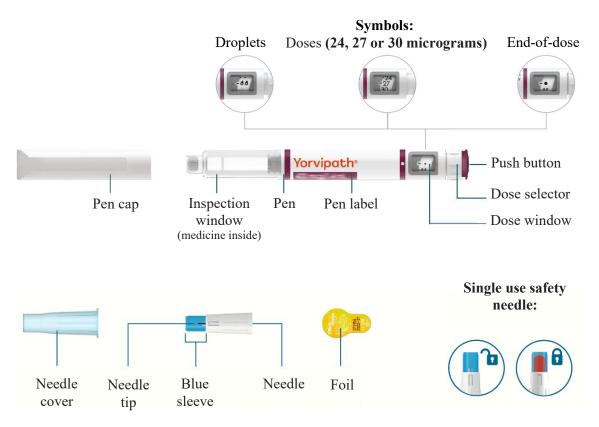
The pen does not allow a larger dose to be set than what is left in the pen. If your dose is larger than the amount of medicine left in the pen you will not be able to dial a full dose. You must throw away your pen and take the full dose of medicine with a new pen.

## 6. The red lock covers the needle before I start injection. What should I do?

Unscrew and throw away the needle in use (see section 5, step 13). Take a new needle from the box and start again from step 1. Every box contains an extra needle.

#### Parts overview

## **Figure A**



Note: There is no medicine inside the needle.

## You will also need

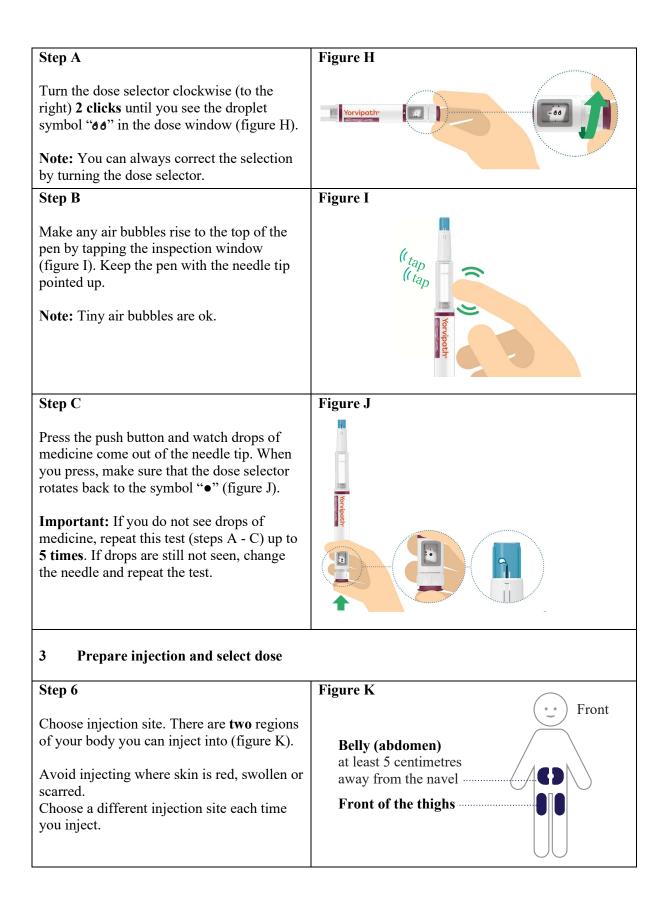
#### **Figure B**

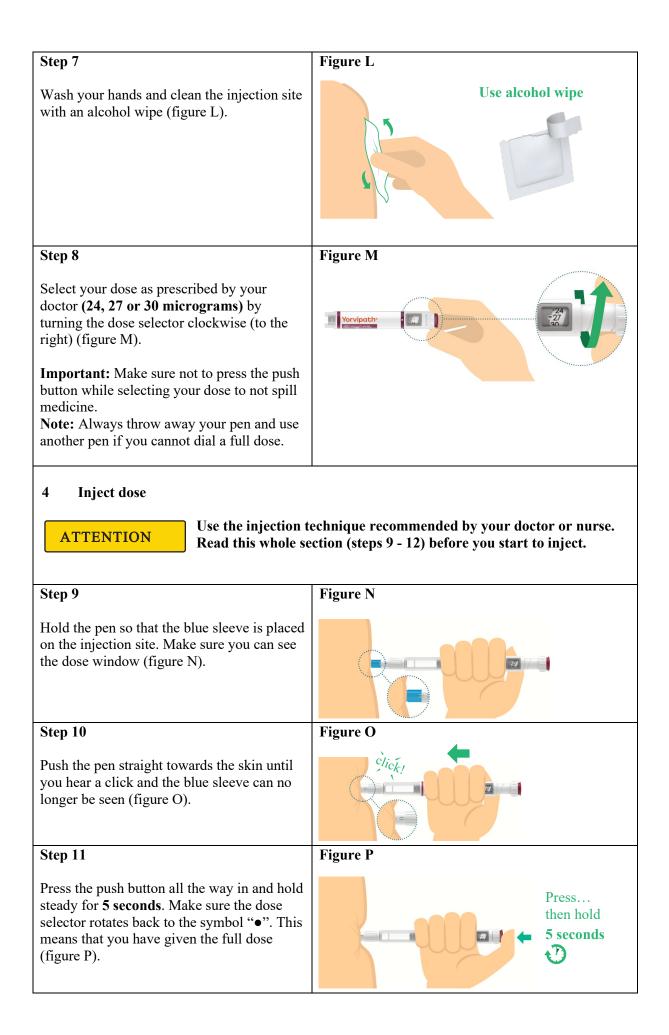


Sharps disposal container

Alcohol wipe

## 1 Prepare pen and needle Step 1 Figure C Take your Yorvipath pen. Make sure it is the correct strength and check the **expiry date**. Yorvipath<sup>®</sup> **Expiry date** Take a needle and check the **expiry date** on OK? the needle (figure C). Note: Take your pen out of the refrigerator 20 minutes before first use. **Figure D** Step 2 Pull off the pen cap and check the inspection **Medicine OK?** window to make sure the medicine inside the pen is clear and colourless (figure D). **Important:** If the medicine has visible particles in it **do not** use the pen. Use a new pen. Figure E Step 3 Pull the foil off the needle (figure E). This needle can only be used **1 time** and locks after use. Always use a new needle for each injection. **Figure F** Step 4 click Click the needle straight onto your pen, then screw the needle onto the pen until Ye secure (it will not tighten all the way) (figure F). Step 5 Figure G Pull off the needle cover (figure G) and throw it away. **Important:** The blue sleeve must not be touched as it may lock the needle. 2 If new pen, test pen flow 1)ar Only test pen flow (steps A - C) the first time you use a new pen. **ATTENTION** If your pen is already in use, go to section "3 Prepare injection and select dose".





Step 12	Figure Q
Slowly remove the pen from the injection site. The blue sleeve automatically locks around the needle and a red lock is seen (figure Q).	
5 Throw away used needle	
Step 13	Figure R
Unscrew the needle and throw away the needle safely in accordance with local regulations (figure R). <b>Do not</b> attempt to recap the needle as you could poke yourself on the back end.	Yorv' th
Step 14	Figure S
Click the pen cap firmly onto the pen to protect it between injections and to protect the medicine from light (figure S).	Yorv: the Click!
6 Throw away used pen	Day 14
<b>Important:</b> Always throw away the pen 14 days after first use according to local regulations. It is recommended to fill out the 'Open date:' field on the inner carton, in order to know when 14 days has passed. Always throw away your pen and any extra needles after <b>14 days of use</b> , even if it still has medicine inside (figure T). This is important to make sure that you get the full effect of your medicine.	Figure T