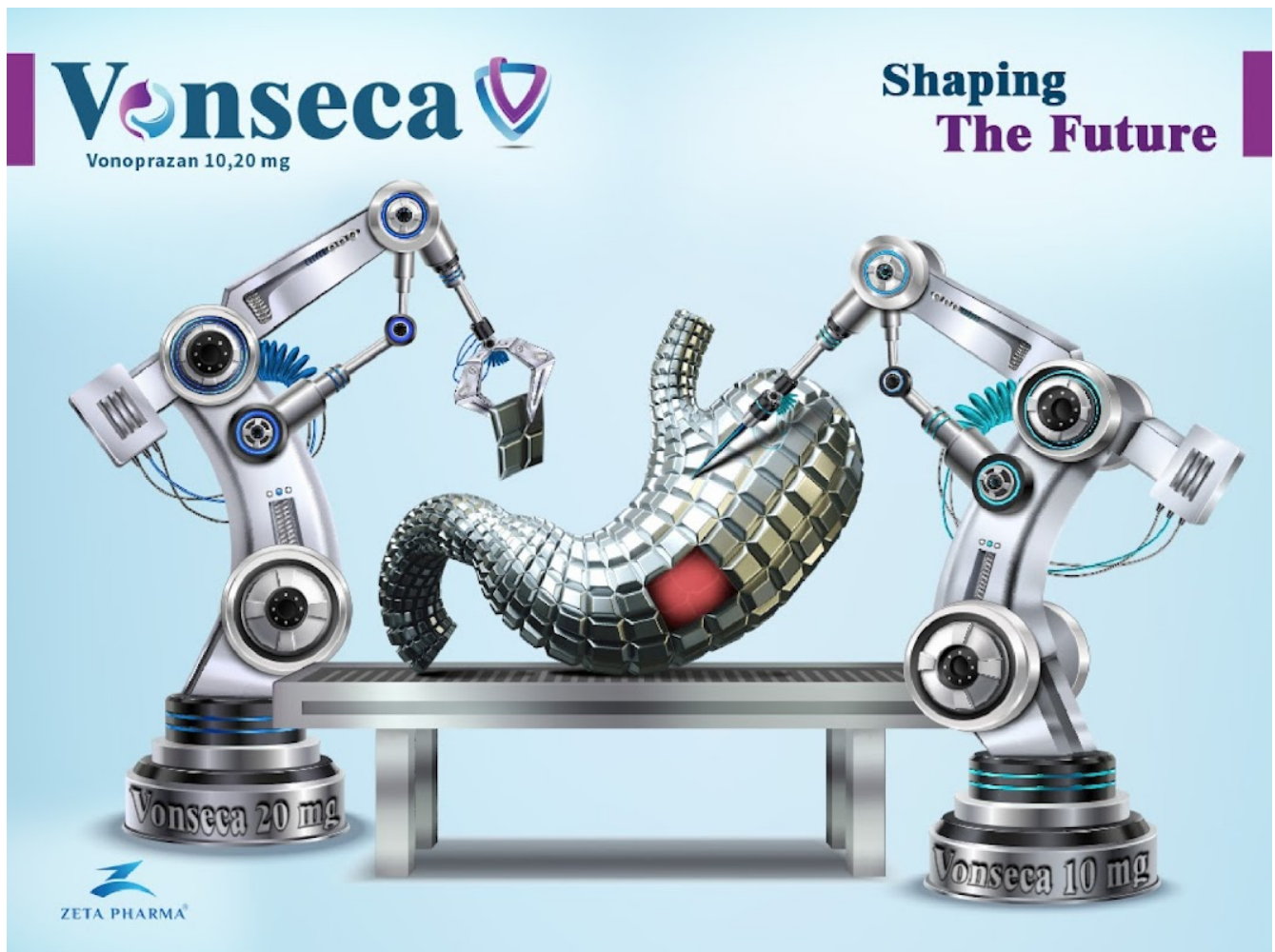


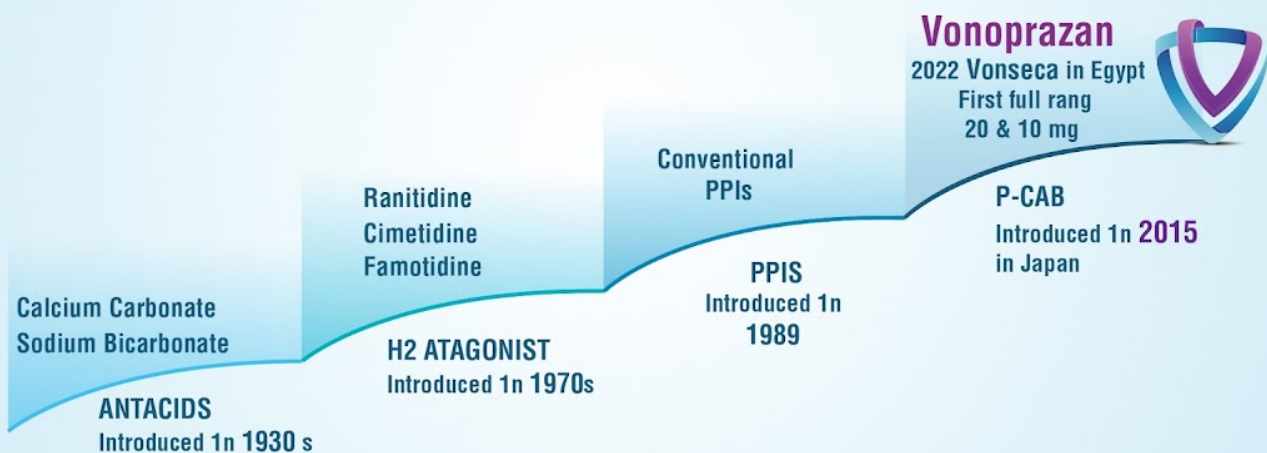


# Vonseca® is the first full range Generic of Vonoprazan In Egypt



## P-CABS: next generation of acid-control therapeutics.<sup>1</sup>

While PPIs are the current standard of care, they have significant **limitations** that result in a **large unmet medical need** due to the **slow onset** and insufficient duration of acid control which can lead to **inadequate symptom relief**.



1- PHATHOM PHARMACEUTICALS, INC. For the Year Ended December 31, 2019



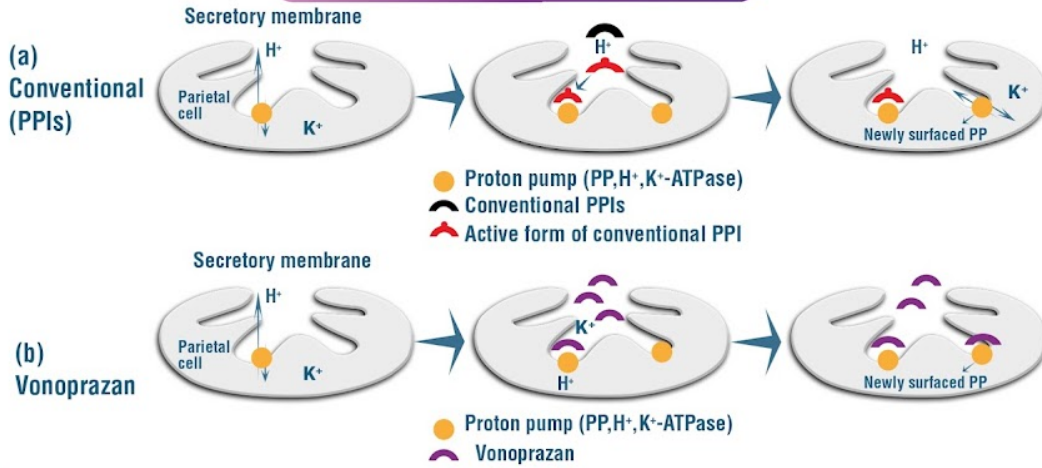
Shaping The Future



**Vonseca** is a strong acid blocker that has **rapid, stable, and long-lasting effects.**<sup>2</sup>

**Vonseca** is a novel, orally active P-CAB (potassium-competitive acid blocker) that binds and reversible inhibits H<sup>+</sup>, K<sup>+</sup>-ATPase at the final step in the acid secretory pathway in gastric parietal cells.

**Difference in Mode of action**



2- Oshima et al., J Neugastroenterol Moti, 2018



**Shaping The Future**





The mechanistic and pharmacologic differences of PPI and Vonoprazan are summarized in the table below.<sup>3</sup>

	Vonoprazan	PPIs
Activation and stability	No activation required and <b>stable in acidic conditions</b>	Prodrug that require acid for activation & <b>unstable in acidic conditions</b>
Binding to proton pump	<b>Reversibly</b> blocks active and inactive proton pumps with slow dissociation	<b>Irreversibly</b> blocks active proton pumps
Plasma half life	<b>Long</b> ( $T_{1/2}$ ): 7 hours	<b>Short</b> ( $T_{1/2}$ ): 2 hours
Onset of action	Achieved target 24-hour acid suppression within <b>2 hours</b>	Take <b>4 to 5 days</b> to maximum
Dosing restrictions	Dosing <b>independent</b> of meal	Generally administered <b>30 to 60 minutes before a meal</b>
Inter-patient variability	Primary metabolism via <b>CYP3A4/5</b>	Primary metabolism via <b>CYP2C19</b>



### ADVANTAGES

- ✓ Rapid onset of action
- ✓ Potent acid control
- ✓ Durable 24-hr activity
- ✓ Fewer side effects/drug-drug interactions

### UNMET NEEDS

- ✗ Slow onset of action
- ✗ Limited potency
- ✗ Limited duration of activity
- ✗ Safety issues/ drug-drug interactions

3- PHATHOM PHARMACEUTICAL S, INC. For the year ended December 31, 2019

**Vonseca**  
Vonoprazan 10-20mg

Shaping The Future



ZETA PHARMA



- ✔ **Vonseca** is a novel, orally active P-CAB (potassium-competitive acid blocker) that binds and inhibits H<sup>+</sup>, K<sup>+</sup>-ATPase at the final step in the acid secretory pathway in gastric parietal cells.
- ✔ **Vonseca** is a strong acid blocker that has rapid, stable and long-lasting effects.
- ✔ **Vonseca** was significantly greater in Acid-inhibitory effect than that of conventional (PPIs).
- ✔ **Vonseca** was achieved complete sustained heartburn relief sooner than conventional (PPIs) during the first week of therapy.
- ✔ **Vonseca** was statistically different in the proportion of patients with healed EE to that produced by conventional (PPIs).
- ✔ **Vonseca** 20 and 10 mg once daily were shown to result in a low EE recurrence rate.
- ✔ **Vonseca** is effective as part of first-line & second-line triple therapy in H pylori-positive patients with a history of gastric or duodenal ulcer.

## Dose

Indication	Dose	Duration
Treatment of gastric ulcer Treatment of duodenal ulcer Treatment of reflux esophagitis	Once daily	4-8 weeks
Helicobacter pylori eradication (Adjuvant to triple therapy)	Twice daily	7 days
After healing reflux esophagitis (Maintenance therapy)	10-20 mg once daily	



- ✔ **Vonseca** can be taken without regard to food or timing of food.
- ✔ **Vonseca** does not require enteric coating as it is acid-stable.

**Vonseca**  
Vonoprazan 10-20mg

Shaping The Future



ZETA PHARMA

## About Vonoprazan & P-CABs

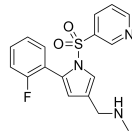
**VONOPRAZAN** is a first-in-class [potassium-competitive acid blocker](#). It was approved in the Japanese market in February 2015.

Vonoprazan is used in form of the [fumarate](#) for the treatment of [gastroduodenal ulcer](#) (including some drug-induced peptic ulcers) and reflux [esophagitis](#), and can be combined with antibiotics for the eradication of [Helicobacter pylori](#).

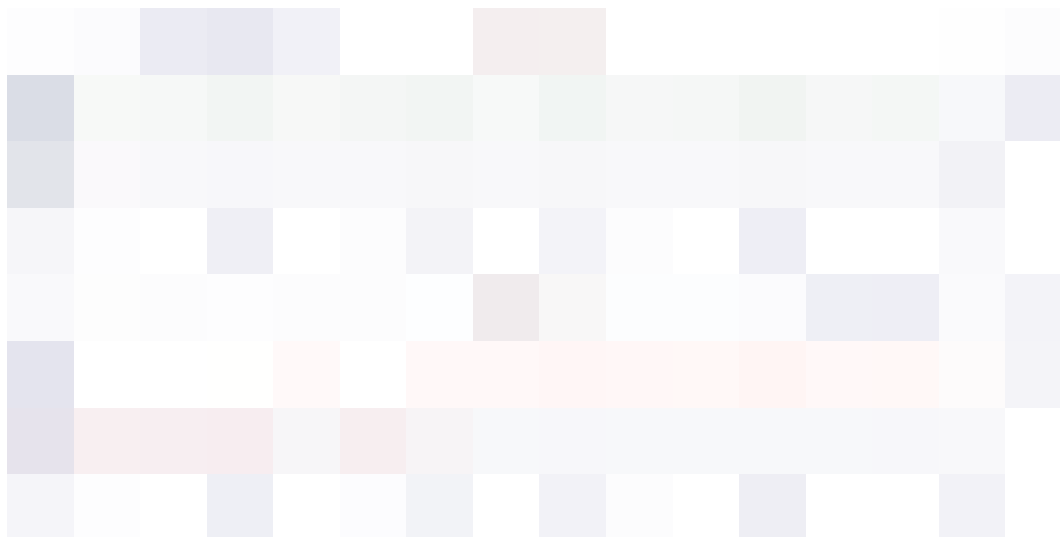
**In 03-May-2022** The (FDA) has approved 2 **VONOPRAZAN**-based medications for the treatment of Helicobacter pylori (H. pylori) infection.

The approval of **VONOPRAZAN** treatment regimens offers physicians and patients 2 therapeutic options that showed superior eradication rates compared to proton pump inhibitor-based (PPI) lansoprazole triple therapy in the overall patient population in a pivotal trial.

**VONOPRAZAN** belongs to a class of products known as PCAB, or potassium-competitive acid blockers. By blocking the potassium-binding site of gastric hydrogen potassium ATPase (also known as the proton pump), which is the enzyme largely responsible for acidification of the stomach, it's designed to overcome many of the perceived weaknesses of traditional proton pump inhibitor therapy.







PPIs	P-CABs
Prodrug and unstable in acid	No need for conversion and stable in acid
Irreversible binding to the external surface of proton pump	Reversible binding to K <sup>+</sup> binding domain of proton pump
Need to stimulate proton pump	No food effect
Inhibit activated proton pump only	Block both resting and stimulated proton pump
Take 4~5days to maximal effect	On demand control due to Fast onset

## About Vonseca®

As per its commitment to offer the latest treatment for the Egyptian's patients., in Jan 2022 Zeta Pharma was the first Egyptian pharmaceutical company to introduce two concentrations of 10mg and 20 mg of vonoprazan in the Egyptian market through its brand Vonseca.®





## About Zeta Pharma

ZETA PHARMA® was established in 2010 to represent an added value in the pharmaceutical industry in Egypt through:

Establishing one of the best manufacturing facilities in the Middle East referenced by the international standards (GMP).

Building a well selected and unique product portfolio in the main therapeutic areas, which ensure that community has the most efficient and up-to-date treatment that directly contributes to improving health care and quality of their life.

Beginning in 2015, ZETA PHARMA® actively contribute to treating Hepatitis C virus in Egypt through its products:

Sofocivir™, Zetaciver™, Sofocivir plus™

