VI.2 Elements for a Public Summary

VI.2.1 Overview of disease epidemiology

Vancomycin capsules are given orally for treatment of *staphylococcal* enterocolitis and antibiotic-associated pseudo-membranous colitis caused by *Clostridium difficile*. *Clostridium difficile*, an anaerobic bacillus, is the causative agent of the diarrheic disease *Clostridium difficile* infection (CDI). CDI is one of the most common healthcare-acquired infections in the western hemisphere. According to the United States (US) Centers for Disease Control and Prevention, US CDI rates doubled from 2000–2003. CDI is the most common cause of infectious diarrhoea in hospitals, and accounts for 15–39% of antibiotic-associated diarrhoeas. While hospitalized patients, especially those receiving antibiotics therapeutically or preventatively, are at increased risk for CDI, community-acquired CDI is also on the rise. Clearly established risk factors include: age above 65 years, concomitant disease, immune-suppression, cancer, gastrointestinal disorders, previous antibiotic use, and previous hospitalization. Use of proton pump inhibitors and residence in extended-care facilities are also postulated to predispose patients to CDI. Recovery is complicated by the potential for disease recurrence that occurs in approximately15–35% of infections. **[Viswanthan 2010]**

VI.2.2 Summary of treatment benefits

The available medical literature is considered sufficient to evaluate the efficacy of vancomycin in the proposed therapeutic indication. Based on literature data, the proposed product is expected to demonstrate treatment benefits in *Clostridium difficile* infection

VI.2.3 Unknowns relating to treatment benefits

There are no animal studies available regarding the effect of vancomycin on fertility.

VI.2.4 Summary of safety concerns

Important identified risks

Risk	What is known	Preventability
Use in patients with inflammatory disorders of intestinal mucosa	Some patients with inflammatory disorders of the intestinal mucosa may have significant absorption of vancomycin throughout the body, leading to increased concentration of vancomycin in the blood. These patients may be at risk for the development of side effects.	Yes, to ensure the correct dose of the drug is given, the doctor will monitor levels of vancomycin in the blood.
Use in patients with kidney problems (Use in renal impairment)	The risk of increased absorption of vancomycin is greater in patients with kidney problems.	Yes, serial monitoring of kidney function should be performed.
Damage to the ear (ototoxicity)	Temporary or permanent loss of hearing is very rare (may affect up to 1 in 10,000 people) side effect reported with use of vancomycin.	Yes, if tinnitus (ringing in the ear) occurs the treatment should be discontinued since it may be the onset to deafness.

Risk	What is known	Preventability
Abnormally low white blood cells (Neutropenia)	Reversible neutropenia, usually starting one week or more after onset of intravenous therapy or after a total dose of more than 25g, has been identified as a side effect of vancomycin treatment.	Patients should seek medical attention immediately.
Use in breast-feeding women	Vancomycin passes into breast milk.	Yes, patients are advised to talk to their doctor if they are pregnant or breast-feeding.
Allergy to Vancomycin (Hypersensitivity to vancomycin)	Signs of an allergic reaction such as shortness of breath, wheeziness, itching, rash, and swelling have been reported to Vancomycin.	Yes, patients are advised not to take this medicine if they are allergic to the active substance or any of the excipients.
Injections that become resistant to Vancomycin after prolonged use (Super infection under prolonged use)	Some microbes may become resistant to Vancomycin after long time use and this medicine may not be able to clear the infection.	Yes, patients are advice to respect the doses prescribed and duration of treatment.

Important potential risks

Risk	What is known (Including reason why it is considered a potential risk)
Use in pregnancy	In a controlled human study, the potential toxic effects of vancomycin on infants were evaluated when the drug was administered to pregnant women for serious *staphylococcal* infections complicating intravenous drug abuse. Vancomycin was found in cord blood. No hearing loss or kidney damage attributable to vancomycin was noted. Vancomycin was administered only in the second and third trimesters; hence it is not known whether it causes foetal harm.

Missing information

Risk	What is known
Effect on fertility	The effect of vancomycin on fertility is not currently known.

VI.2.5 Summary of additional risk minimisation measures by safety concern

Summary of Product Characteristics (SPC) of Vancomycin Strides 125 mg and 250 mg hard capsules provides physicians, pharmacists and other health care professionals with details on how to use the medicine, the risks and recommendations for minimising them. An abbreviated version of this in lay language is provided in the form of the package leaflet (PL). All these risk minimisation measures are given in SPC and PL of Vancomycin.

This medicine has no additional risk minimisation measures.

VI.2.6 Planned post authorisation development plan

No post authorisation study is planned for this product.

VI.2.7 Summary of changes to the Risk Management Plan over time

Version	Date (dd-mm-yyyy)	Safety Concerns	Comment
01	<enter date>	Important identified risks: • Use in patients with inflammatory disorders of intestinal mucosa • Use in renal impairment • Ototoxicity • Neutropenia • Use in breast-feeding women Important potential risks: • Use in pregnancy Missing information: • Effect on fertility	Initial submission
02	<enter date>	Important identified risks: • Use in patients with inflammatory disorders of intestinal mucosa • Use in renal impairment • Ototoxicity • Neutropenia • Use in breast-feeding women • Hypersensitivity to vancomycin • Super infection under prolonged use Important potential risks:	Amended as per RMS Day 70 Preliminary Assessment Report

		• Use in pregnancy Missing information: • Effect on fertility	