

SANTYL OINTMENT

Collagenase

Pharmacy

**DESCRIPTION**

Santyl (Collagenase) ointment is a sterile topical enzymatic debriding agent that contains 250 units of collagenase per gram of white petrolatum USP. The enzyme collagenase is derived from the fermentation of *Clostridium histolyticum*. It possesses the unique ability to selectively digest denatured and undenatured collagen that binds necrotic debris to the wound surface.

Clinical Pharmacology:

Santyl possesses the ability to digest insoluble collagen, undenatured and denatured, by peptide bond cleavage, under physiological conditions of pH and temperature. This ability makes it particularly effective in the removal of detritus from dermal lesions, contributing towards the more rapid formation of granulation tissue and subsequent epithelialization of dermal ulcers and severely burned areas. Collagen in healthy tissue or in newly formed granulation tissue is not digested.

INDICATIONS

- Debridement of dermal ulcers or severely burned areas

CONTRAINDICATIONS

- Do not use for patients who have shown a local or systemic hypersensitivity to collagenase

Warning:

- Debilitated patients should be closely monitored for systemic bacterial infections because of the theoretical possibility that debriding enzymes may increase the risk of bacteremia

PRECAUTIONS

- The optimal pH range for the enzyme to work is 6 – 8
- Lower pH conditions have resulted in adverse effects on the enzymes activity
- Enzyme activity is adversely affected by detergents, hexachlorophene and heavy metal ions (e.g. mercury, silver) and cobalt, magnesium and manganese
- Avoid use of Burow's solution (metal ion and low pH composition)
- If hydrogen peroxide or Dakin's solution are used as cleansing agents rinse well with saline after before applying Santyl
- Confine application to the area of the lesion
- The enzyme does not damage newly forming granulation tissue
- A slight erythema can occur to the surrounding tissue, this can be controlled with a periwound protective product e.g. Vaseline or 15% zinc oxide paste
- Sensitization can develop with long term use

ADVERSE REACTIONS

- One case of systemic manifestations of hypersensitivity has been reported in a patient treated for more than one year with a combination of collagenase and cortisone
- Irritation, maceration or erythema has been noted where prolonged contact of normal skin with Santyl has been allowed either by application to areas of normal skin or by excessive application to the wound crater with subsequent spread to normal skin when dressings are applied – reported incidence 1.8%

SYMPTOMS AND TREATMENT OF OVERDOSE

Symptoms:

- To date the irritation, maceration or erythema reported on prolonged contact of normal skin with Santyl are the only symptoms of overdosage reported

Treatment:

- Santyl can be rendered inert by the application of Burow's solution (pH 3.6 – 4.4) to the treatment site
- If this is necessary reapplication should be made only with caution

DIRECTIONS FOR USE

1. Prior to application the lesions should be gently cleansed with sterile normal saline to remove any film and digested material. If a stronger cleansing solution is required, hydrogen peroxide or Dakin's solution may be used, followed by sterile normal saline.
2. When infection is present, as evidenced by positive cultures, pus, inflammation or odour, it is desirable to use an

appropriate antibacterial agent. should The infection not respond, therapy with Santyl should be discontinued until remission of the infection.

3. Santyl ointment should be applied (using a tongue depressor or spatula) directly to deep wounds, or when dealing with shallow wounds, to a non-adherent dressing then applied to the wound. The wound is covered with an appropriate dressing such as a sterile gauze pad and properly secured.
4. Use of an occlusive or semi-occlusive dressing may promote softening of eschar, if present. Crosshatching thick eschar with a #11 blade (by wound specialist) is helpful in speeding up debridement then cleanse with sterile saline. It is also desirable to remove as much loosened detritus as can be done readily with forceps and scissors (by wound specialist).
5. All excess ointment should be removed each time the dressing is changed.
6. Use of Santyl ointment should be terminated when debridement of necrotic tissue is complete and granulation is well under way.

FREQUENCY OF CHANGE

- Ointment should be applied daily or more frequently if dressing becomes soiled (from incontinence)

Adapted from Healthpoint Product Insert