SevoFlo® (sevoflurane)
Taking control to the next level

SevoFlo® — fast smooth induction and rapid recovery.
Goal of Anaesthesia — Maintain the Physiological Norm

Benefits:
- Facilitate better manipulation of patient.
- Maximise tissue perfusion.
- Sustain immune function and improve speed and quality of healing.
- Use as little anaesthetic as possible.
- Minimise post-surgical mortality and morbidity.

The Negative Effects of Anaesthesia...
- Are greater, the more anaesthetic is given.
- Tissue perfusion can be reduced.
- Increased likelihood of cell damage, which can lead to:
  - Compromised liver/kidney/brain function.
  - Changes in behaviour.
  - Prolonged recovery, diarrhoea and sickness.

To maintain the physiological norm, use as little anaesthetic as possible.

Anaesthesia — An Ideal Plane

Negative effects of anaesthesia are less likely at the ideal plane.
- The ideal plane — demonstrated with the red dotted line — is where patient anaesthetic depth is continually kept fractionally above the acceptable minimum (i.e. dose to effect).
- Maintaining the ideal plane minimises the dose of anaesthetic agent administered and the depressive negative effects of the agent.
- Using an agent that allows rapid changes and fine control of depth enables the ideal plane to be achieved.

Concepts of Anaesthesia
About SevoFlo® (sevoflurane)

Low Blood:Gas Solubility (BGS):

- The lower blood:gas solubility, the more rapidly the agent achieves an effect in the brain.
- SevoFlo has lower blood:gas solubility than either isoflurane or halothane.
- Lower BGS means:
  - Rapid and precise control during maintenance.
  - Greater opportunity to achieve the ideal plane.

Higher Minimum Alveolar Concentration (MAC)

- SevoFlo has a higher MAC compared to isoflurane or halothane and requires higher vaporiser settings.
- Greater range of vaporiser settings to choose from.
- Greater opportunity to achieve the ideal plane.

Less Respiratory Depression

- A study at Oklahoma State University demonstrated that dogs had less respiratory depression when receiving equipotent doses of isoflurane and sevoflurane.\(^1\)
- SevoFlo — less respiratory depression than isoflurane.

Pleasant, Non-Pungent Odour

- Isoflurane is unpleasant to breathe and is an irritant to the airways.\(^2\)
- SevoFlo is pleasant-smelling and relatively non-irritating to the airways.\(^3\)
- SevoFlo is another option for mask/tank induction.

Benefits of SevoFlo® (sevoflurane) in Phases of Anaesthesia

**Induction:**
- SevoFlo provides an additional option for induction, giving practice flexibility.
- Fast, smooth inductions are expected.
- Well tolerated by the majority of patients.

**Maintenance:**
- Rapid and precise control to achieve the ideal plane of anaesthesia and during maintenance.
- Less of a respiratory depressant than isoflurane.

**Recovery:**
- Smooth return of cognitive and motor skills.
- Animals can return home quickly.
- Rapid return to physiological norm expected.
Prescribing Information

**Product Name:** SevoFlo® Inhalation vapour, liquid for dogs.

**Active Ingredients:** Contains 100% sevoflurane.

**Indications for use:** Sevoflurane is an inhalational anaesthetic agent, for the induction and maintenance of general anaesthesia in dogs.

**Contra-indications:** Do not use in dogs with a known sensitivity to sevoflurane or other halogenated anaesthetic agents, dogs with a susceptibility to malignant hyperthermia, in pregnant or lactating bitches, or in dogs less than 12 weeks of age.

**Undesirable Effects:** Sevoflurane causes dose-dependent respiratory depression, therefore respiration should be closely monitored and the inspired concentration adjusted accordingly. Hypotension, tachyypnoea, muscle tensesness, excitation, apnoea, muscle fasciculations and emesis have been reported. Paddling, retching, salivation, cyanosis, premature ventricular contractions and excessive cardiopulmonary depression have been reported infrequently. As with other halogenated anaesthetic agents transient elevations in aspartate aminotransferase (AST), alanine aminotransferase (ALT), lactate dehydrogenase (LDH), bilirubin and white blood cell counts may occur. The use of some anaesthetic regimens that include sevoflurane may result in bradycardia that is reversible with anticholinergics.

**Special precautions for use:** SevoFlo should not be passed through soda lime or barium hydroxide that has been allowed to dry out. Long-duration, low-flow sevoflurane anaesthesia should be avoided. Arterial blood pressure should be monitored at frequent intervals during sevoflurane anaesthesia. Prolonged episodes of hypotension (mean arterial pressure below 60 mmHg) should be avoided in dogs during sevoflurane anaesthesia. Doses of sevoflurane may need adjustment for geriatric or debilitated dogs. In dogs with head injuries or other conditions placing them at risk from increased intracranial pressure (ICP), it is recommended that hypocapnia be induced by means of controlled hyperventilation as a means of preventing changes in ICP.

**Interaction with other medicaments and other forms of interaction:** Sevoflurane is compatible with intravenous barbiturates and propofol. Concurrent use of thiopental may cause a slight increase in sensitivity to adrenaline-induced cardiac arrhythmias. Sevoflurane MAC is reduced by the concurrent administration of benzodiazepinesand opioids. The dose of sevoflurane should be reduced accordingly when used concurrently with -2 agonists, exercise caution with potent -2 agonists (medetomidine and romifidine). The concurrent use of muscle relaxants and sevoflurane has not been evaluated in dogs, in humans it increases the intensity and duration of neuromuscular blockadeinduced by nondepolarising muscle relaxants.

**Special warnings for target species:** None.

**Withdrawal periods:** Not applicable.

**Overdose:** Overdose can cause profound respiratory depression, monitor respiration carefully and support with supplementary oxygen and/or assisted ventilation. Discontinue sevoflurane administration in cases of severe cardiopulmonary depression, ensure patent airway and initiate assisted/ controlled ventilation with pure oxygen. Treat cardiovascular depression with plasma expanders, pressor agents, antiarrhythmic agents or other appropriate technique. Excessive decreases in blood pressure or respiration may be corrected by decreasing or stopping inspired sevoflurane concentration.

**Special precautions to be taken by the person administering the product to animals:** Use cuffed endotracheal tube when possible during maintenance anaesthesia. Ensure adequate ventilation and scavenging systems in operating theatres and recovery areas. Do not inhale the vapour, avoid contact by mouth, and following contact on the skin wash area with abundant amounts of water. Pregnant and breastfeeding women should avoid contact with sevoflurane, operating theatres and recovery areas. If person shows symptoms of respiratory depression, hypotension, bradycardia, shivering, nausea or headache following sevoflurane exposure seek medical attention. Doctors should maintain a patent airway and give symptomatic and supportive treatment.

See Summary of Product Characteristics for further information.


**Legal Category:** POM-V.

Not to be sold to animal owners.

April 2010.

**Reference:**

**UKSEVO-047/R1 April 2012 ©Abbott Laboratories**