

Fact Sheet Compiled by: Monica McDonald

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Fact Sheet Reviewed by: Cheri Asa



MGA Liquid

Active Ingredient

Melengestrol acetate

Product Type

Progestin

Manufacturer

ZooPharm division of Wedgewood Pharmacy

Product information

MGA, a synthetic progestin dissolved in a special propylene glycol formulation for orally delivered contraception, is considered suitable for species in which orally delivered MGA has been shown to be safe and effective.

Safety to humans

When used as directed, this product poses no health risk to humans. ZooPharm believes this MGA formulation is not a hazardous material according to the OSHA Hazard Communications Standard, 29 CFR 1910.1200 or the EPA Community Right-to-Know regulations. Therefore, no Material Safety Data Sheets (MSDS) have been produced. Protective gloves should be worn during administration, since the product contains a hormone, which at high levels might cause disruption of menstrual cycles and prolongation of pregnancy.

Safety to treated animals

MGA has been administered orally to domestic cattle for decades without untoward effects, which suggests that it should be generally safe for ruminants, but there may be species differences.

Dosing

The product comes as a solution of 1.15mg MGA/ml. The following daily MGA doses are recommended:

- 0.1 mg MGA/day/animal - for small mammals such as bats and rodents
- 0.5 mg MGA/day/animal - for larger mammal species <800 lbs.
- 1.0 mg MGA/day/animal - for species >800 lbs, except giraffes and hippos.
- 3.0 mg MGA/day/animal: giraffes and hippos

The maximum safe dose is considered to be up to 3 times those recommended here. NOTE: If the full dose is not consumed every day, the female should be separated from males, since follicle growth and ovulation may occur.

Ordering

Before placing your first order with ZooPharm, or to add species to an existing order, you must register with the AZA Reproductive Management Center. The RMC will then notify ZooPharm that you are an

approved buyer so you will be able to make the purchase through a valid prescription faxed to them at 307-721-3801. The formulation is compounded to a 1.15mg/ml strength in a 30 ml vial, at a price of \$25.00 plus shipping and handling. A more dilute strength can be provided on request for smaller mammals. Cost of special flavorings are extra. Please submit the [MGA Liquid Registration Form](#) to the person listed at the bottom of the page.

Storage

MGA liquid should be stored at controlled room temperature in the original container. The expiration date of the MGA liquid is 1 year from the date it is transferred into medication bottle (date prescription is filled) or the expiration date from the manufacturer, whichever is sooner.

Insertion/Administration

MGA liquid can be added to a treat and delivered to individual animals, can be delivered directly into the mouth of animals such as hippos, or can be added to the regular diet and fed individually or to groups. However, it is important to ensure that each female ingests at least the minimum effective dose every day or ovulation and pregnancy can result. If a female refuses to consume the dose, she should be separated from males until she has consumed the proper dose again for at least 1 week.

Although progestin contraception can be effective even when ovulation is not blocked, to ensure efficacy we recommend that the dose be sufficiently high to suppress estrous behavior. Please report observations of estrous behavior in treated animals to contraception@stlzoo.org to discuss whether a higher dosage is warranted.

Latency to effectiveness

Although individuals vary, threshold levels of the hormone should be reached in the blood within 1 to 3 days of starting this product. However, pre-ovulatory follicles are difficult to suppress, so, if cycle stage is not known, extra time must be allowed. Therefore, separation or alternative contraception should be used for 1-2 weeks after treatment begins.

Signs of estrus during treatment

Synthetic progestins may achieve contraception by blocking ovulation, causing thickening of cervical mucus, slowing ovum transport, and/or interfering with fertilization or implantation. However, follicle growth may continue and sometimes be accompanied by estrogen production sufficient to cause estrous behavior. Ovulation may occur even though pregnancy does not ensue. Higher progestin doses may be preferred so that estrous behavior is prevented, but may not be effective in completely suppressing follicle growth and all estrogen production.

Duration of efficacy and reversibility

Duration of efficacy may not be much more than 1 day, so the product must be administered daily. Following cessation of treatment, rapid clearance can result in ovulation within a few days, but actual latency to conception will vary by individual.

Use during pregnancy

Progestins are not recommended in late pregnancy because of the possibility of prolonged gestation, although the effect may depend on species and dose.

Use during lactation

Progestins are sometimes prescribed for lactating women and are considered generally safe for nursing infants.

Use in pre-pubertal animals

Lack of data on pre-pubertal treatment and potential long-term effects on fertility contraindicates recommending contraception before puberty. Future reproduction was not affected in calves of domestic cows on MGA-treated feed, but no published studies of pre-pubertal treatment with MGA or other progestins have been conducted with other species, so possible long-term effects on fertility are not known.

Precautions

Progestins may cause weight gain in all species. Possible deleterious effects on uterine and mammary tissues vary greatly by species; see cautions for each taxon.

Antler abnormalities such as malformations, full shedding of velvet, and occasional aberrant sheeting or breaking of full antlers, have been seen in males of some cervid species (Raphael et al., 2003).

Consideration for seasonal breeders

Treatment should begin at least 1 month before the anticipated onset of the breeding season.

Reporting Requirements

All institutions using this product are asked to contribute contraception information for their animals to the AZA Reproductive Management Center's Contraception Database (<https://www.zoocontraceptiondata.org>). It is essential that accurate records of doses and treatment intervals be maintained, and results reported, to contribute to dosage development.

For questions about the RMC Contraception Database, contact:

Ashley Franklin, Program Analyst
AZA Reproductive Management Center
One Government Drive
Saint Louis, MO 63110
301-956-0171; fax: 314-646-5534
franklin@stlzoo.org

References:

Raphael, B. L., P. Kalk, P. Thomas, P. P. Calle, J. G. Doherty, and R. A. Cook. (2003), Use of melengestrol acetate in feed for contraception in herds of captive ungulates. *Zoo Biology* 22(5), 455-463.