Short-term use of megestrol acetate for estrus prevention in cats during the Covid-19-related delay of surgical sterilization outside the U.S.

Updated June 14, 2021 (originally released April 6, 2020)

**Situation:** To maintain social distancing and conserve personal protective equipment (PPE) and resources for emergency human and animal medical care during the Covid-19 pandemic, routine surgical sterilizations are being defined by many organizations and national or local governments as non-essential. Animal welfare organizations and veterinarians are concerned about how this policy will impact their work. In the United States, several influential entities in veterinary medicine have advised animal shelters, spay/neuter clinics, and veterinarians to comply with this order by delaying sterilization surgeries for dogs and cats. Animals are being released for adoption or into foster without sterilization (assumedly with an agreement to neuter). Organizations and professionals are understandably worried that pregnancies will result in unwanted litters that will further stress shelter intake and the community when shelter resources will be low and community need high, especially during high seasonal reproduction for cats. This statement has been adapted for non-US organizations, with reference to the U.S. only as may be helpful. The rest of this statement relates only to cats – we are exploring dog options more and will address dogs separately.

**Alternatives to surgery:** Any non-surgical contraceptive will need to be administered in accordance with human social/physical distancing requirements to reduce the spread of Covid-19 and without the use of PPE to conserve those resources for human health. In most countries, including the U.S., there are no drugs or vaccines approved for the suppression of fertility in either female or male cats. In some countries, the progestin megestrol acetate (MA) can be obtained and used as an oral contraceptive when administered for short durations to prevent estrus in queens while surgeries are delayed. This statement provides a profile of megestrol acetate (MA) with our recommendation of it for emergency short-term use in female cats who are at risk of conceiving during pandemic restrictions.

**Target animals:** This recommendation is for cats that can be individually treated at prescribed times with an accurate dose and whose health can be monitored over time. Unaltered queens ≥ approximately 4 pounds (1.814 kg) body weight can be treated to prevent estrus, especially if at risk of being in contact with a fertile male. Administration of MA to pregnant dogs can cause masculinization of female fetuses. There is no equivalent data for pregnant cats. MA has been used in feral cat colonies, administered by mixing it into food, at a much lower dose per cat than the one in our dosage section below. Treating community cats comes with less ability to control how much each cat in a colony eats. Because of this, ACC&D has historically advised against the use of MA in free-roaming cat populations, as these animals often cannot be closely monitored for adverse effects or treated effectively should health conditions arise. The COVID-19 pandemic and associated limitations on spay/neuter programs demanded reconsideration of this position and exploration of safer ways to use MA. In situations when spay surgery is not accessible for female free-roaming cats, we advise weighing the risks and benefits of short-term use of a low dose of MA.

**Description of the pharmaceutical:** MA is a synthetic progestin that can be used to prevent pregnancy and estrus (“heat”) cycles in dogs and cats, as well as other mammalian species. It has also been prescribed to treat certain skin and behavior problems in dogs and cats of both sexes. MA has been studied and used for dogs and cats over several decades in numerous countries under different brand names and at varying recommended doses. Research to date strongly suggests that when considering use of MA to prevent or suppress estrus, the dosage and treatment duration is important in order to minimize the likelihood of adverse side effects.

**Dosage suggestions:** In a 2015 review of decades of research, the recommended oral dosage for cats not showing estrus signs is 2.5 mg/cat weekly (approximately 0.625 mg/kg/week) for up to 30 weeks. The oral dosage for cats showing signs of estrus is higher at 5 mg/cat daily for three days followed by the 2.5 mg/cat dose weekly after that.

**Efficacy:** The literature suggests that in cats, the contraceptive effect takes place quickly but there is no available data to support this. It must be assumed that once a queen is off the medication, she will come into heat.
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Safety: Potential adverse side effects in cats are more likely to occur at higher doses (>2.5 mg/cat). These side effects include diabetes mellitus, pyometra, adrenal gland suppression (Addison’s disease), mammary hyperplasia, and mammary cancer. Diabetes mellitus, with or without related complications, occurred at rates as high as 5-10% when cats are treated at higher doses (>2.5 mg/cat) and may or may not resolve after halting MA treatment. Some other side effects may resolve once the cat is taken off the medication.

Availability of megestrol acetate: A veterinarian prescription is required, and to obtain MA in a dose appropriate for cats, a veterinary compounding pharmacy may be needed. In some countries, veterinary compounders may be the only source of the product.

MA is marketed under different names across the world for human medicine; the most common name may be Megace®. For veterinary purposes, a source cited availability via the company Vetoquinol, brand name Megecat, in Austria, Belgium, France, Malaysia, Mexico, The Netherlands, Portugal and Switzerland. The same source noted that Merck markets Estropill in Italy, and that Ceva markets Pillkan in Russia. A resource dated 2015 noted, MA is also available in Europe, Japan, and Australia under a number of different names. Brand names currently or previously available include Megecat®, Ovarid®, Suppress®, Chronopil®, Canipil®, Oestroval10®, Felipil®, MiniPil®, Pilucalm®, Pillkan®, Megedine®, Opochaleurs®, Pruritex®, Estropill®, Estroblock®, and Ovaban® (this should not be considered a complete list; other brand names may exist). It is worth noting that in Europe, no MA-based product is approved for purposes of canine and/or feline contraception by the European Union-wide European Medicines Agency (EMA); rather, it is approved on a country-by-country basis.

Veterinary products are typically compounded for a specific individual, in this case, cats. In some states within the U.S., veterinarians are permitted to order a supply of “office stock” of non-controlled prescription compounded medications from select compounding pharmacies, which can greatly reduce cost, and then use that supply for individual cats. An oral liquid suspension of MA can be flavored (chicken, fish, etc.) and provided in a variety of container volumes. Individual doses can be drawn into oral syringes. Although MA is available in other forms, practical considerations suggest MA compounded as a liquid suspension will be easier and more cost-effective to administer to cats.

Based on U.S. research, this product is quite inexpensive. 503B compounding Stokes Healthcare (serving the U.S.) can ship “office stock” directly to veterinarians if permitted by their state. For example, a 30 mL vial of MA (10 mg/mL) contains 120 doses. The price quoted on April 2nd was U.S.D. $42 or 35 cents per dose (not including oral syringes or a $9.50 shipping fee for 2-day delivery). Popular U.S. compounding pharmacies Wedgewood and Roadrunner quoted similar prices. Stokes Healthcare quoted a 6-month shelf life on the product; another agency only 90 days. Veterinarians should check with their preferred compounding pharmacies for details pertaining to their situation and location.

Making this recommendation: The Alliance for Contraception in Cats and Dogs (www.acc-d.org) is a non-profit organization formed in 2000. Our mission is to advance non-surgical sterilants and contraceptives for cats and dogs and to promote their global accessibility. We envision a world in which dog and cat populations are effectively and humanely managed, improving the lives of dogs and cats and the people who care about them. This statement results from a new benefit/risk equation posed by COVID-19. It is up to each veterinarian to weigh the benefit of the need to prevent pregnancy and the health risks to the individual cat.

Advising this announcement: The decision to advise the field on the applicability of this interim contraceptive was made in consultation with key ACC&D Board members and Scientific Advisors whose bio are on our website, specifically Cheri Asa, PhD; Julie Levy, DVM, PhD, DACVIM; Linda Rhodes, VMD, PhD, and Michelle Kutzler, MBA, DVM, PhD, DACT. The American College of Theriogenologists is in agreement that there may be viable non-surgical short-term options to prevent pregnancy in certain cats during this current Covid-19 pandemic, and encourages owners to consult with their primary care veterinarian or a theriogenologist to discuss potential treatment.
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Important references for practitioners: Practitioners should consult the following peer reviewed papers for additional information:


More information is available on ACC&D’s website at: https://bit.ly/progestins.

Citations
6) https://en.wikipedia.org/wiki/Megestrol_acetate