



**THE HUMANE SOCIETY
OF THE UNITED STATES**

Animal Care Expo 2021

April 21-23

An oral cat contraceptive option as you manage spay delay

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Non-surgical fertility control

MISSION: to advance non-surgical sterilants and contraceptives for cats and dogs, and to promote their global accessibility

VISION: 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.





Agenda

Megestrol Acetate (MA) as a female cat contraceptive

- What is it ?
- Some usage & pilots during COVID spay delays
- Navigating challenges

Update on R&D for a permanent sterilant for female cats

Questions



But first, a quick poll



Credit: V. Benka

Continuing education code: CCM1

Relooking at Risks and Benefits of Fertility control

What is Megestrol Acetate (MA)?

Synthetic progestin, oral

Women: to treat breast and endometrial cancer

Dogs: Ovaban - FDA registered to postpone estrus

Cats: available off label in U.S. to postpone estrus.

Decades of use internationally in countries where approved.

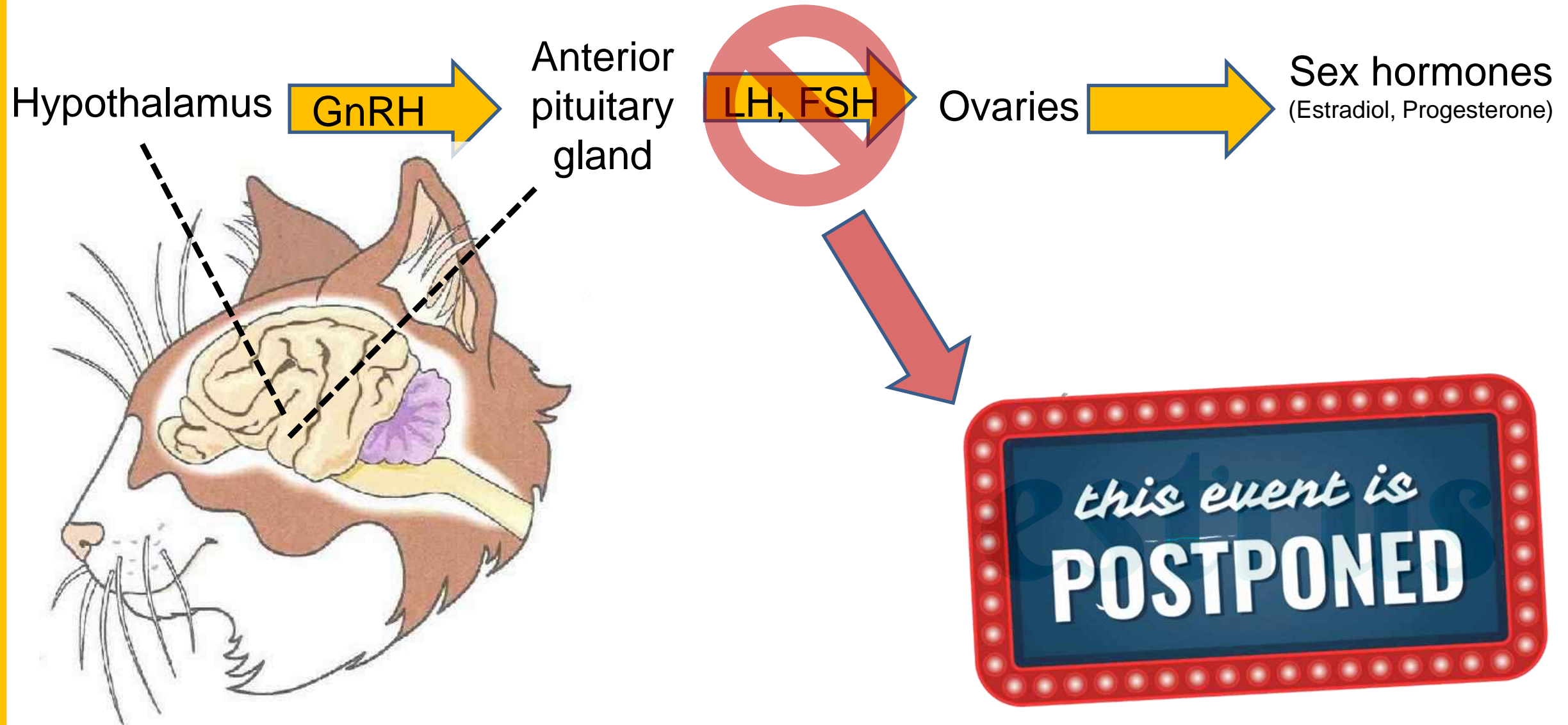
Veterinary brands:

Megecat[®], Ovarid[®], Suppress[®], Chronopil[®], Canipil[®], Oestruval10[®], Felipil[®], MiniPil[®], Pilucalm[®], PillKan[®], Megedine[®], Oepochaleurs[®], Pruritex[®], Estropill[®], Estroblock[®]

**How Does
Megestrol Acetate
Work?**



Postpones Estrus/Stops Ovulation



MA Available Formulations

- Veterinary prescription
- pill or compounded liquid
- liquid recommended
- ~180 day shelf life*
- 10 mg/ml = “sweet spot”
- very affordable



Megestrol Acetate Dosing

“Low Dose”*for Individual Cats

0.625 mg/kg = ~ 2.5 mg/cat/week

Studied & dosage for many commercialized products.

* if in heat.



* If cat is in heat:
5 mg dose EOD in
week 1, then normal
dosing starting week 2

“Micro Dosing” for managed grps.

0.1 to 0.2 mg/kg/cat weekly

Lower dose not studied, anecdotal effectiveness



One Cat, One Dose, One Week

Megestrol Acetate Efficacy

- Decades of widespread usage with reported success but.....
Very little hard data for low-dosage treatment.

Oen 1977*

- 244 cats
- 30 weeks
- Two litters
- 21 with signs of heat

Study went 30 weeks;
has been basis for duration reco.



*Romagnoli, S. *“Progestins to control feline reproduction: Historical abuse of high doses and potentially safe use of low doses”* Journal of Feline Medicine and Surgery (2015)17 :743 - 751

Megestrol Acetate

Side Effects

Micro

0.1 - 0.2
mg/kg/week

No published studies

Low

0.625
mg/kg/week

Increased appetite
Weight gain
Haircoat changes

Intermediate

0.625
mg/kg/day

Transient glucose intolerance
Adrenocortical suppression
Haircoat changes

High

> 0.625
mg/kg/day

Mammary tumors
Uterine lesions
Pyometra



Use case:

Owned and Shelter Cats

- Managing wait for a clinic appointment during spay delay
- Shelter cats coming of age in foster homes
- Cats adopted intact while waiting for appointment.

(manage heat behaviors in home even if no access to males)



Use Case: MA while awaiting TNR & for hard-to-trap community cats

Community cat case study

- 20-acre government housing complex in Florida
- 1999 to present: managed w/ TNR & adoption
- MA at microdose for new cats (even if sex unknown), hard to trap cats
- One un-trappable cat had 9 litters, then treated successfully with MA 2008-2013
- Cat population peaked at 135 and currently at 10
- *“The only side effect from the medicine is a positive one: the mom cats start to look healthy.”*

What about ?



- **Male cats**
- **No fertility control**



Kittens < 4mo
Unknown
risk/benefit profile



Pregnant cats
Rare Reports of stillborns
Kitten masculinization

Pandemic Learnings

acc-d.org/covid-19-resources

Can't find what you're looking for? More resources will be available soon. In the meantime, please feel free to contact us.



ABOUT RESEARCH & INNOVATION PRODUCTS RESOURCE CENTER CONTACT

GET INVOLVED

Research & Innovation

Covid-19 Resources

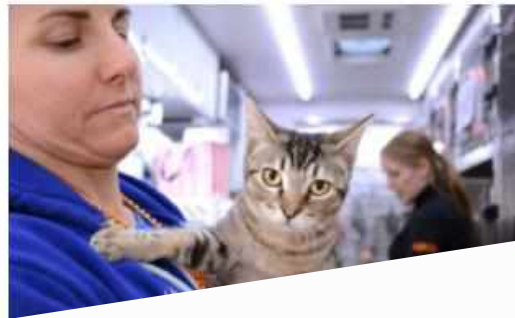
WELCOME TO COVID-19 POP-UP PANEL

How your TNR efforts have prepared you for COVID-19

And how to get back on track humanely managing cat colony populations

ASPCA Statement of Support for Veterinarians Considering Megestrol Acetate as a Temporary Contraceptive for Female Cats During COVID-19

Widespread decrease in access to routine spay/neuter during the COVID-19 pandemic has raised valid concern that many cats will breed, resulting in an overwhelming number of kittens that could far outnumber available adoptive and foster homes. Making the situation even more challenging are the potentially



Megestrol Acetate

A Possible Adjunct to Spaying Female Cats During COVID-19 Crisis



AMERICAN COLLEGE
OF THERIOGENOLOGISTS

Non-surgical Contraception – A Potential Lifesaver During COVID-19

April 21, 2020
Updated: January 15, 2021

Cat Contraception Megestrol Acetate (MA) A Useful Tool During Covid

News Categories

Alley Cat Allies

Our Work

Alley Cat Allies is Working to Keep Cats Fed and Cared for During the COVID-19 Crisis

Information will be updated regularly as this crisis unfolds.

HumanePro

Laws + Public Policies

Resources by Species

Shelter + Rescue

Animals: Covid-19 Shelter Toolkit

Help animals in the shelter and your community

Recording: An emergency contraception option for cats during Covid-19 delayed

Read the Alliance for Contraception in Cats & Dogs statement and resources about

contraceptive appropriate for well-monitored cats for up to 30 weeks during spay de

is affordable and available from veterinary compounding pharmacies. Dr. Julie Levy (U

Medicine Education Univ. of Florida), and Dr. Mike Greenberg (Maddie's Fund) discuss

webinar available on Maddie's and from ACC&D's websites. **Watch the recording.**

Resources

DOSAGE TRACKING FORM

Cat Name/ID/Description	
Dosage of MA prescribed	<input type="checkbox"/> 0.1 to 0.2 mg/kg per cat once <input type="checkbox"/> 0.625 mg/kg per cat, typ <input type="checkbox"/> 5 mg per cat 3 times in the cat in heat) <input type="checkbox"/> Other:

Date	Amount of dose eaten	Cat (Describe any changes)
EXAMPLE 1/1/20	75%	Mixed into tbsp. of Friskies. Seem



Tips for Monitoring Megestrol Acetate (MA) Doses & Side Effects

Keeping Track

A Dosage Tracking Form is included to help you keep track of dose administration and any side effects per individual cat. You're welcome to use this form, but it is not required. If you are administering megestrol acetate (MA) to multiple cats, we strongly encourage you to keep written records of dosages and any side effects by cat so that when you provide your data to us (by completing a survey), the information will be easily accessible.

Rule of Thumb: One Cat – One Dose

Remember to remove uneaten food promptly. If you suspect another cat has eaten the medication, we encourage you to document the occurrence (e.g., using a separate Dosage Tracking Form) and note any changes to that cat's behavior or physical condition.

Ensuring Successful Administration and Monitoring for Side Effects and Effectiveness

Using the Dosage Tracking Form or another method, record any information which may be useful for administering the medication, tracking side effects, or evaluating MA's effectiveness.

Hopefully MA will prevent estrus and pregnancy during administration. However, **be sure to note any observations related to pregnancy or going into heat.**

- Signs of heat may include:**
- Vocalizing
 - Attention-seeking behavior
 - Demanding or pushy behavior
 - Rolling on the floor especially when back stroked

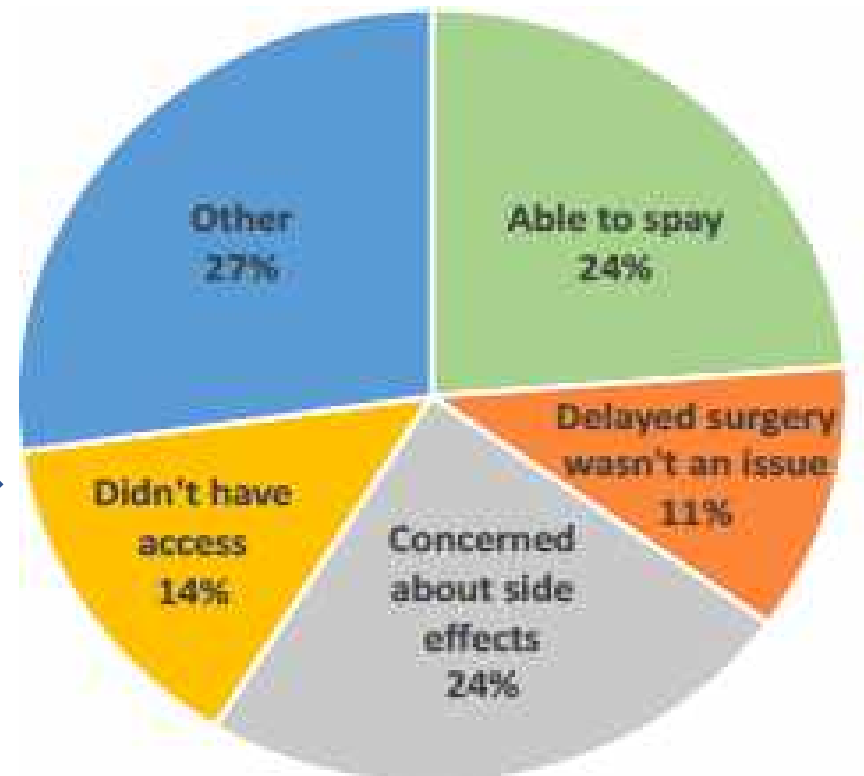
... examples of a few other things to keep in mind, ... after you begin to administer MA: ... eat all food containing ... note which

Summer 2020 Survey results

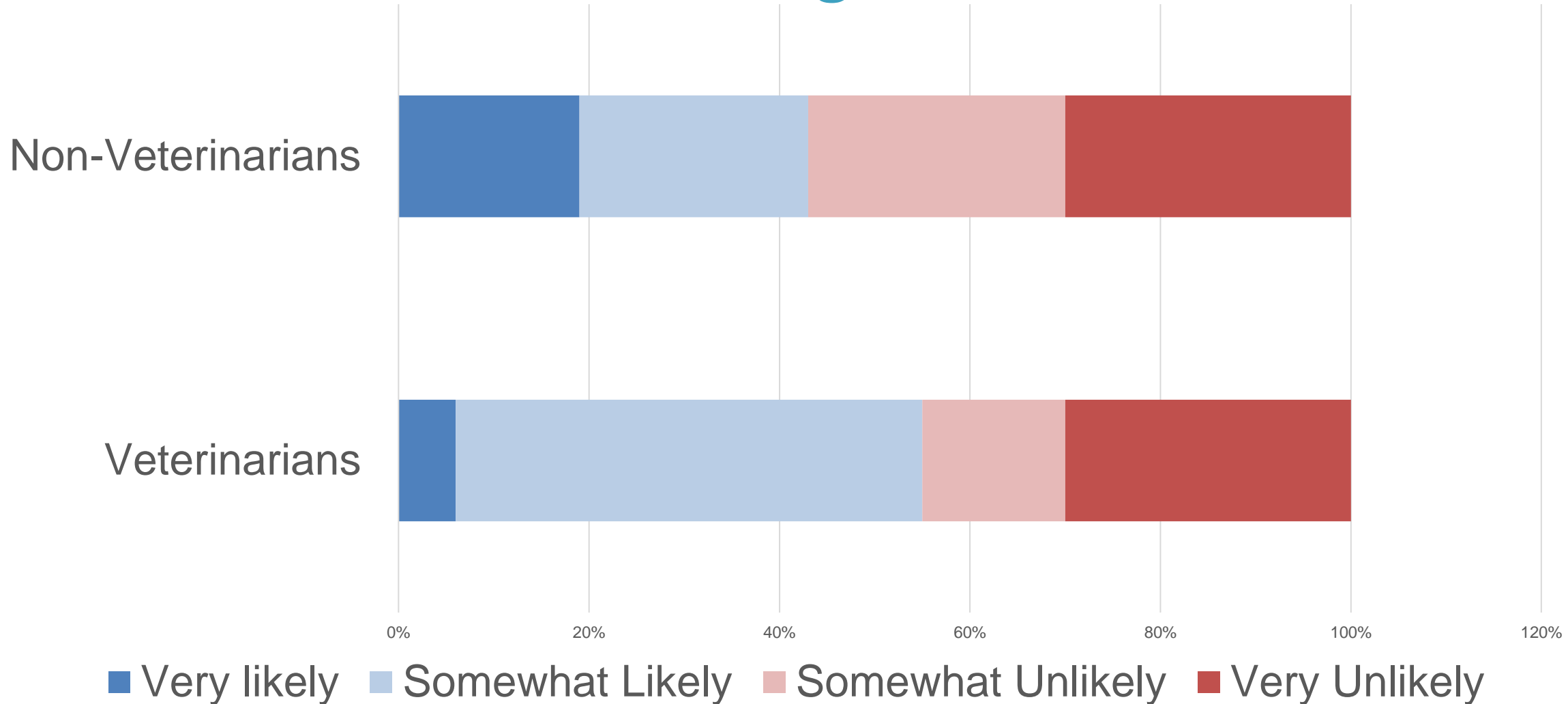
7% used MA

93% did not use

Primary reason
93% did not use MA



Of non-users, 55% of vets, and 43% of non-vets would consider using MA in the future



Pandemic Pioneers

Dianne Brown, DVM
Cat Adoption Team, Oregon



- Cats adopted intact
- Cats in foster
- Weekly 2.5mg dose, higher if in heat

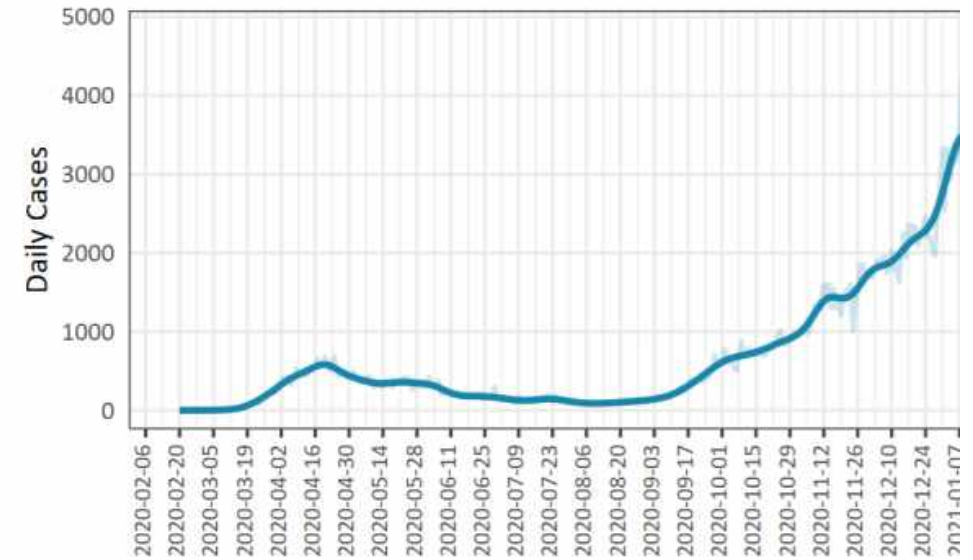
Pandemic Pioneers

Linda Jacobson BVsc MMedVed(Med) Phd.
Toronto Humane Society



The Process

- Fall 2020
- Stakeholder engagement:
 - Toronto Feral Cat Coalition
 - College of Veterinarians of Ontario (regulatory body)
 - THS management, Board, staff
 - Community cat caregiver survey
- Presented risk:benefit, no attempt to convince
- Decision to use microdose (1mg/cat/week)
- Protocols, consent, information, communication, follow-up



Pilot Program

- Six small groups - 11 females
- Stillbirths – 2 cats in 1 group
 - 3 in one cat,
 - 1 in other - TNR done, pregnant, normal fetuses
- Administration has been easy
- Challenges:
 - Drawing up the small dose
 - Some cats don't like wet food
 - Monitoring



Data collection

- Weekly follow-up calls:
 - Check-in
 - Clinical issues? (lethargy, teat enlargement, pregnancy, heat/mating behavior, appetite, hair coat, other)
- Clinical data collection at TNR
- Storing uterus and ovaries for possible future analysis



Least harms, risk-benefit framework

Risks

- Uncertainty - medication new to us
- Historical side effects at high doses
- Concerns about late start date



Benefits

- Anecdotally safe and effective
- Prevents heat and pregnancy
- Prevents neonatal kitten deaths
- Support for caregivers
- Another tool in the toolkit

Relevant Topics

VCPR – challenge for pets lacking a current vet or for community cats

- The Veterinarian-Client-Patient Relationship must be established during an in-person visit and is required for the practice of veterinary medicine
- Some states are waiving requirement for in-person visit to establish a VCPR during COVID pandemic

Relevant Topics

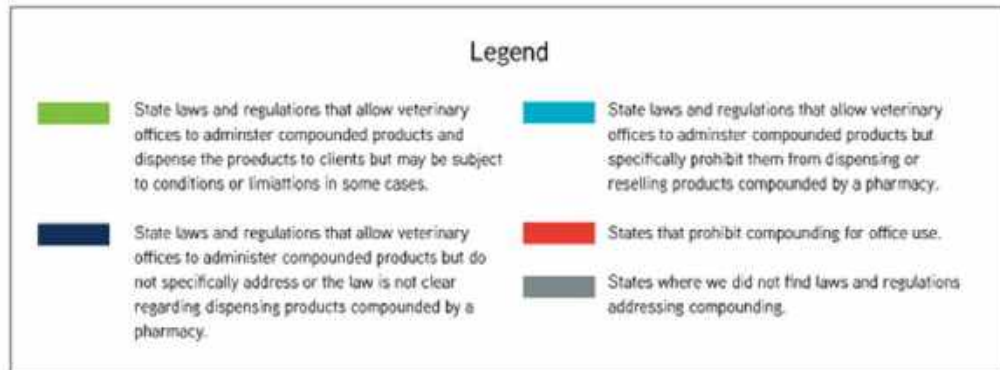
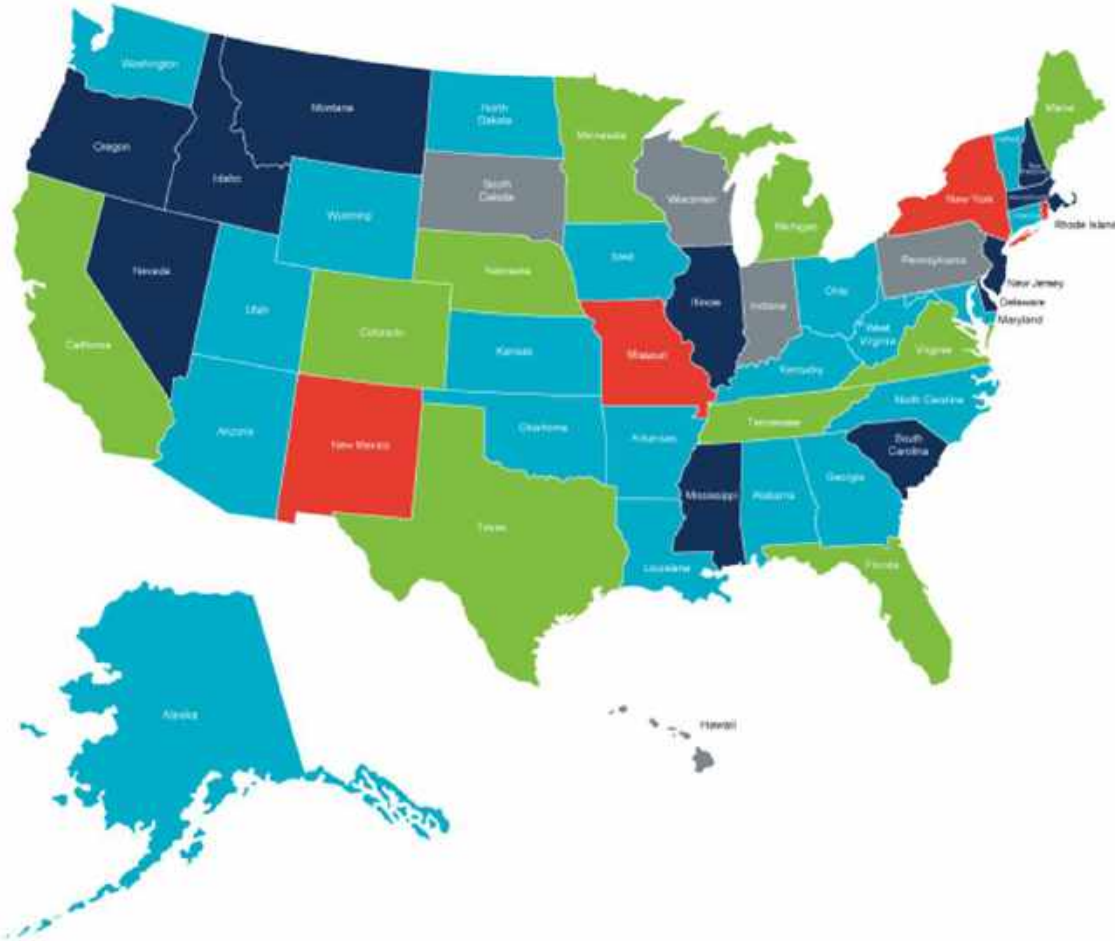
Medication Compounding

The customized manipulation of an approved drug(s) by a veterinarian, or by a pharmacist upon the prescription of a veterinarian, to meet the needs of a particular patient

- Mixing 2 medications
- Making oral suspensions from tablets
- Adding flavoring
- Transdermal gels

Dosage/format of MA for cats is best compounded.

U.S. COMPOUNDING LAWS



Regulation

Compounding laws vary by state

- “Office stock” can be used for pets owned by the shelter (including fosters)
- Individual prescriptions needed for privately owned animals and community cats

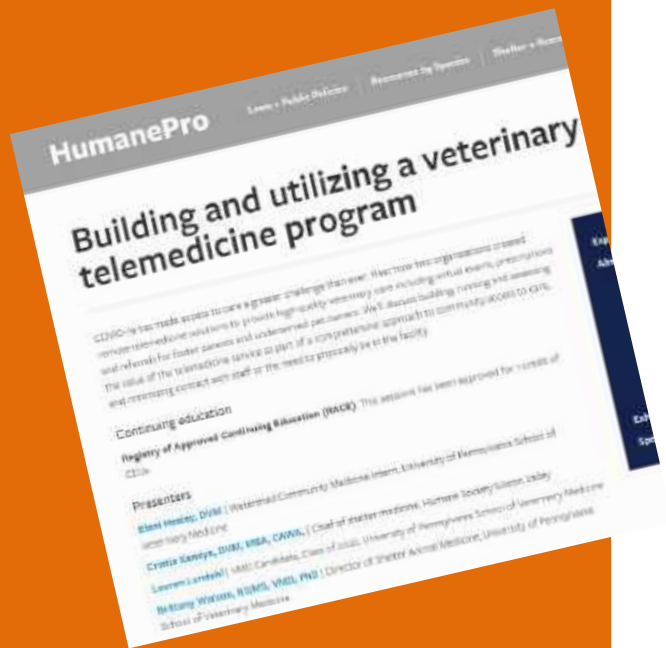
Compounding pharmacies can help navigate in each state

<https://www.avma.org/sites/default/files/2019-11/US-Map-Compounding-Laws.png>

Relevant Topics

Telemedicine

- Telemedicine is the practice of medicine using technology to deliver care at a distance. A physician in one location uses a telecommunications infrastructure to deliver care to a patient at a distant site.
- Practice of veterinary medicine includes diagnosis, prognosis, treatment.



Next
Session!

Summary



1. Megestrol acetate (MA) can prevent heat and pregnancy in female cats. Can also “halt” estrus at higher/more frequent dose
2. “Buy time” while waiting for spay surgery
3. Currently used low-dose MA maximizes efficacy/minimizes side effects
4. “off label use;” common in veterinary medicine, guidelines to follow
5. Veterinarian prescription and VCPR
6. Risk/Benefit assessment key; DEI considerations in judging for others

Breaking News – An injectible sterilant for cats

Michelson Found Animals Prize & Grants



- Single dose, permanent treatment, female cats
- 2nd year breeding study successful
- Shift from grant-based project to drug development
- FDA regulation pathway key to timeline.



Questions

For more information:

www.acc-d.org

info@acc-d.org

**Please reach out and share any
experience with MA!**



Continuing education code: CCM11