The following scenario may be useful in stimulating discussion regarding a plan and schedule for implementation of the 8th edition of the *Guide for the Care and Use of Laboratory Animals (Guide).* To facilitate discussion, pages 1-2 of the scenario may be distributed prior to the IACUC meeting. After a few minutes of discussion during the next IACUC meeting, the remaining pages may be distributed to provide ideas for the committee’s consideration. *[](http://en.wikipedia.org/wiki/File:US-DeptOfVeteransAffairs-Seal.svg)*

Dr. Carmine Rossi, the Chair of the Hometown VA-IACUC, has read OLAW’s announcement that all assured institutions will be required to develop a plan and schedule for the implementation of the 8th edition of the *Guide* by December 31, 2012 (see link -<http://grants.nih.gov/grants/olaw/2011guideadoption.htm>). He has also reviewed OLAW’s position statement on rabbit housing:

*“OLAW concurs with the 8th Edition of the* Guide*. “Rabbits should be housed under conditions that provide sufficient space... to meet physical, physiologic, and behavioral needs. The height of an enclosure can be important to allow for expression of species-specific behaviors and postural adjustments. Cage height should take into account the animals' typical posture and provide adequate clearance for the animal from cage structures, such as feeders and water devices. Space allocations should be assessed, reviewed, and modified as necessary by the IACUC considering the performance indices and special needs determined by the characteristics of the animal.” (See* Guide *pages 51-52, 56, 59.)”*

*“IACUCs may consider the use of a rabbit cage that is 14 inches in height, if appropriate. The IACUC should establish, through performance indices related to animal well-being, that the cage provides sufficient space to meet the physical, physiologic and behavioral needs of the animal. For example, the rabbit must be able to hold its ears in an upright position (if this is natural for the breed) and ears must not be forced to fold over by contact with the cage ceiling. OLAW recognizes the necessity of cost-efficiency and the valid concerns of the community about program cost. Programs should function efficiently, but not at the cost of animal welfare.”*

Dr. Rossi realizes that it will not be easy to comply with the OLAW’s directives and he is especially concerned about the new space requirements for rabbits. He contacts the VMU Supervisor, Patrick Fitzgerald, and learns from Patrick that the Hometown VA has an average daily census of 30 rabbits. Patrick tells Dr. Rossi that new cages were purchased by the Hometown VA in late 2009 and these cages meet the USDA requirements for floor space and height. However, the *Guide* now recommends the minimum cage height to be 16”, so all of the current rabbit cages are two inches too short. This news makes Dr. Rossi feel queasy. With budget cuts being announced on a regular basis, how on earth could the purchase of new cages be justified when the current cages are USDA compliant and barely three years old? He realizes that the IACUC has no time to waste in developing a *Guide* implementation plan and schedule*.* Since rabbit housing appears to be the most problematic issue, Dr. Rossi appoints a subcommittee at the January IACUC meeting, composed of the attending veterinarian, Dr. Diaz, and two scientists to develop plans on how the Hometown VA will come into compliance with the *Guide* in regard to this issue.He encourages the subcommittee to meet as soon as possible with Patrick, the VMU Supervisor, to review all pertinent information related to rabbit housing at the Hometown VA. Patrick and the subcommittee members meet two days later. Patrick presents the following information:

Rabbits – Average Daily Census

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Principal  Investigator | Protocol  Number | Average  Daily Census | Breed | Rabbit  Weights | Comments |
| Mark Rogers  Orthopedics | 299 | 12 | New  Zealand White | < 5.4 Kg | Three year study on the influence of exercise on bone healing in mature rabbits. Started – 1/15/12; Ending – 1/14/15 |
| Bence Jones  Immunology | 302 | 4 | New Zealand  White | >5.4 Kg | Antibody producers; expected duration of housing – 3 years. |
| Mary  Kidman | 314 | 14 | Dutch  Belted | < 2 Kg | 14 rabbits ordered every two weeks; all rabbits used in terminal renal perfusion study within 10 days of arrival. VA Merit award – renewed 10/10/11. |

Animal Holding Rooms – currently vacant

|  |  |  |  |
| --- | --- | --- | --- |
| Room # | Housing type | Features | Dimensions |
| 2 | Multipurpose | Automated water system  Automated rack flushing  Floor drains | 12’ X 16’ |
| 3 | Multipurpose | Automated water system  Automated rack flushing  Floor drains | 12’ X 16’ |
| 5 | Large Animal | (12) 4’ X 6’ runs  Chain link, sealed concrete floors  Trench drains with covers | 36’ X 20’ |

Cage Inventory (currently not in use/in storage)

|  |  |  |  |
| --- | --- | --- | --- |
| Cage type | Dimensions | Arrangement | Quantity |
| Dog cages | Animal space: 48”W X 36”D X 36”H  SS w/ expanded metal vinyl  coated floors, excreta pan,  bowl holders, casters | 2 cages stack/unit | 6 units |
| Cat cages | Animal space: 24"W x 24"D x 24"H  SS slotted floors, excreta pan,  bowl holders, casters | 4 cages/unit | 6 units |
| Rabbit cages | Animal space: 30"W x 24"D x 14 1/2"H  SS with expanded metal vinyl coated  floors, excreta pan,  bowl holders, casters | 6 cages/unit | 2 units |

Given this information, if you were on the subcommittee, what options would you present for the IACUC’s consideration at the February meeting?

**Plan 1 – Use runs in room #5 for rabbit housing**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PI | Breed | # | Weight | Required  floor space per animal | Required  height | Run  floor space | Run  height | Rabbits/run | Runs  occupied |
| Rogers | NZW | 12 | < 5.4 Kg | 4 sq ft | 16 in | 24 sq ft | 6ft | 4/ run | 3 |
| Jones | NZW | 4 | >5.4 Kg | > 5 sq ft | 16 in | 24 ft | 6ft | 2/ run | 2 |
| Kidman | DB | 14 | < 2 Kg | 1.5 sq ft | 16 in | 24 ft | 6ft | 7/ run | 2 |

**Advantages**: effective use of existing space and equipment; rabbits can be moved to the other side of

the room during cleaning; no capital equipment expense; rabbits are socially housed; meets and exceeds *Guide* space requirements.

**Disadvantages:** not ideal for rabbits healing from surgery; increased labor; increased

bedding costs, increases susceptibility to fecal-oral transmitted diseases.

**Plan 2 – Use dog and cat cages to house rabbits**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PI | Breed | # | Weight | Required  floor space per animal | Required  height | Cage Type | Cage  Dimensions  (floor space per cage) | Rabbits/  cage | Cage units |
| Rogers | NZW | 12 | <5.4 Kg | 4 sq ft | 16” | Dog | 48”W X 36”D X 36”H  (12 ft2) | 3 | 2  (2 cages/unit) |
| Jones | NZW | 4 | >5.4 Kg | > 5 sq ft | 16 “ | Dog cage | 48”W X 36”D X 36”H  (12 ft2) | 2 | 1  (2 cages/unit) |
| Kidman | DB | 14 | < 2 Kg | 1.5 sq ft | 16 “ | Cat  Cage | 24"W x 24"D x 24"H  (4 ft2) | 2 | 2  (4 cages/unit |

**Advantages**: effective use of existing equipment; no capital equipment expense; better environment for

post operative rabbits; all rabbits are socially housed, meets and exceeds 8th edition of

the *Guide* space requirements.

**Disadvantages:** may have to purchase new floor panels with perforations sized for rabbits, may have to

make some adjustments to cages to accommodate J-feeders and water bottles (or if an

automated watering system is used).

**Plan 3 – Justify use of existing rabbit cages for Dutch Belted rabbits**

* OLAW guidance states IACUCs may consider the use of rabbit cages that are 14 inches in height, if appropriate.
* The IACUC decides to approve a study to evaluate whether existing cages with 14” ceiling height meet thephysical, physiologic and behavioral needs of Dutch Belted rabbits weighing < 2 Kg, using the following process:
  + House 6 Dutch Belteds (2 rabbits/cage) in existing rabbit cages and 6 Dutch Belteds (2 rabbits/cage) in cat cages.
  + Monitor (i.e. video recordings) rabbits to determine whether animals housed in existing rabbit cages that are 14” in height can assume normal postures, including sitting upright without their ears touching or being folded over by the cage ceiling.
  + Monitor (i.e. video recordings) rabbit behavior to determine whether any differences can be detected based on cage type.
  + Measure and compare cortisol levels between Dutch Belted rabbits housed in existing cages (14” H) and Dutch Belted rabbits housed in cat cages.
  + Study should be initiated no later than 4/1/12 and must be completed by 5/31/12. The IACUC will review the study findings at the June IACUC meeting.
* If the results of the study support the use of existing cages with 14” ceiling height, the IACUC will petition OLAW to accept that these cages can be used for rabbits weighing < 2Kg and be in compliance with the *Guide*. Formal petition by the IACUC must be submitted to OLAW no later than 8/1/12.
* Larger rabbits will be housed in cat or dog cages that provide adequate floor space and height effective 6/1/12. Note: The June date was selected to give advanced notice to the effected investigators and to complete logistical arrangements related to the use of these cages.
* If OLAW accepts the Hometown VA’s documentation and plan to house Dutch Belted rabbits in cages with a 14” ceiling height, the Hometown VA-IACUC will propose all studies involving rabbits initiated after 9/30/12 be required to use Dutch Belteds. If an investigator requests a larger breed of rabbits, scientific justification must be provided and approved by the IACUC.

The three plans presented above are not meant to be prescriptive, nor are they meant to be the only options that an IACUC should consider. The plans presented merely illustrate that a variety of approaches may be taken by the IACUC to address implementation of the *Guide.* A plan that works for one institution may not be applicable to another. The important point of this exercise is to realize that each IACUC must start evaluating their animal care and use program for compliance with the *Guide* immediately, so that a plan for achieving compliance can be developed by December 31, 2012.