

# Animal dummy models and simulators for anesthesia training

Created on: 22-06-2023 - Last modified on: 23-06-2023

## Contact person

Annelies Decloedt

## Organisation

**Name of the organisation** Ghent University (UGent)

**Department** Veterinary skillslab

**Country** Belgium

## SCOPE OF THE METHOD

|                                  |                        |
|----------------------------------|------------------------|
| <b>The Method relates to</b>     | Animal health          |
| <b>The Method is situated in</b> | Education and training |
| <b>Type of method</b>            | Other                  |

## DESCRIPTION

### Method keywords

veterinary medicine

skillslab training

dummy

anesthesia

manual ventilation

mechanical ventilation

anesthetic monitoring

## **Scientific area keywords**

Veterinary education  
clinical training  
Preclinical model

## **Method description**

In the skillslab, dummy models and simulators are used for teaching various clinical skills. The veterinarians in training need to learn how to monitor and approach an animal under anesthesia. Furthermore, they need to learn ventilation techniques and comprehension of an anesthetic machine. An important part of this training process can be performed on dummy models and simulators in the skillslab also using anesthetic machines.

## **Lab equipment**

Commercial dummies:  
- Critical care Jerry ([Rescuecritters.com](http://Rescuecritters.com))

Home-made dummies:  
- stuffed toy dog with artificial lungs, endotracheal tube, ECG patches and IV catheter  
- stuffed toy piglet with artificial lungs, endotracheal tube, ECG patches and IV catheter

## **Method status**

History of use  
Internally validated

## **PROS, CONS & FUTURE POTENTIAL**

### **Advantages**

The use of educational animal models in a skillslab offers a number of significant advantages:

- Reduced use of laboratory animals and reduced discomfort for patients, as procedures can be practised on dummy models and simulators before performing them on a live animal.

- Teaching of clinical skills in a quiet and safe environment, reducing anxiety and stress for the veterinary student.
- Complex practical skills can be split into a number of small steps when practising them in the skillslab.

## **Challenges**

- High cost of models,
- Clinical training on live animals needed as well,
- Creating and repairing the home-made models is time consuming for a large group of students.
- Also, students learn how to connect monitoring cables in a logical order, but no real or simulation of monitoring parameters is included in the simulator up to now.

## **Modifications**

Further optimisation of home-made models and purchasing available commercial models. Certainly, a simulation of monitoring parameters in different situations might be included in the future.

## **Future & Other applications**

Training for lab animal anesthetic procedures.

## **REFERENCES, ASSOCIATED DOCUMENTS AND OTHER INFORMATION**

### **Associated documents**

[20201008\\_085507.jpg](#)

[USPL9293.JPG](#)

*Coordinated by*



*Financed by*

