

Guidelines for Safety in Veterinary Anaesthesia: Enclosure 1

Recommendation for post-anaesthetic care.

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During the first hours following a diagnostic and /or therapeutic treatment which implied sedation or general anaesthesia, the patient is exposed to the risk of complication due to the residual effects of administered anaesthetic drugs and to the consequences of the treatment itself.

Therefore, a proper surveillance is desirable, which will have to be led in a suitably equipped area.

This paper, which has been written by ISVRA Workgroup for Safety in Anaesthesia and Intensive Care (ISVRA stands for Italian Society of Regional Anaesthesia and Pain Therapy) has the purpose of contributing to optimize post-anaesthetic care, providing for a general protocol, which will have to be adapted to the specific needs of each veterinary practice.

The recommendations contained in this paper will be subject to periodical revision, in order to respond to clinical and technological progress in veterinary anaesthesia.

Post-anaesthetic care

A patient which has undergone general/regional/local anaesthesia or sedation may show a decrease of respiratory, cardiovascular, and neurological functions to a certain extent. Thus, a temporary surveillance from trained medical or paramedic staff may be necessary, in a suitable area for observation and monitoring, until full recovery from anaesthesia.

Post-anaesthetic care may be accomplished in the operating theatre or in a suitably equipped recovery area.

If the anaesthetist cannot personally take care of the patient during the recovery, he/she will have to give the member of the staff providing post-anaesthetic care all the necessary clinical information, plus directions about the most convenient type of surveillance/assistance, also depending on the kind of anaesthesia and the drugs the patient has received.

Members from the staff who are taking care of the patient during recovery should be capable to recognize any deterioration of vital functions,

consequently supplying proper assistance before the arrival of an anaesthetist.

Surveillance and assistance from the anaesthetist or from trained staff should also be maintained while the patient is moved from the theatre to the recovery area and/or to the intensive care unit (ICU).

During the recovery, the patient should receive a full check of all vital parameters:

- respiratory (oxygenation, respiratory rate, width and symmetry of thoracic excursion);
- cardiovascular (heart beat frequency and systemic arterial pressure);
- neurological (awareness, presence of airway protective reflexes such as coughing and swallowing, space orientation, responsiveness to verbal stimulation).

Furthermore, body temperature, renal functions and neuromuscular strength (head-raising and moving limbs) are to be checked, particularly if neuromuscular blocking agents (NMBA) have been used during anaesthesia. Intravascular lines and possible blood losses should be assessed regularly.

It is useful to record all these data in anaesthetic record or in the patient's ward daily sheet.

Clinical surveillance may be implemented with instrumental monitoring, when patient's conditions make it necessary.

The patient should be monitored until it shows a full recovery of all airway protection reflexes, consciousness, and vital indicators are satisfactorily steady.

Dismissal from the recovery area is decided by the anaesthetist, after having checked all the above mentioned conditions.

It is recommendable to take note, both in the anaesthetic record and in the patient's ward daily sheet, of all clinical and instrumental information taken during recovery from anaesthesia (evolution, patient conditions at the time to be moved to ward), along with eventual prescriptions, time of dismissal from post-anaesthetic care area, and the name of the vet who took care of the animal and decided to move it to ward.

Recommendations for improvement of the recovery area

The following recommendations are meant to optimize post-anaesthetic care in a suitably equipped area. However, it cannot be denied that the present situation of veterinary practices in Italy still lacks of homogeneity as far as medical and paramedic staff is concerned, also considering the premises and technological requirements our recommendations suggest. Therefore, the advice written in this paper should be regarded as a target to be reached with time, rather than a short-term goal.

If there is a chance to set up an equipped recovery area, this should be adjacent to the surgical area in order to move the patient as little as possible,

allowing at the same time an anaesthetist to be available quickly and suitable instruments to be used.

To keep all the necessary apparatuses working, a recovery area should be provided with electric sockets, oxygen and vacuum plugs (or suction, if vacuum is not available). Furthermore, all emergency drugs and devices should be at hand in the area.

Surveillance and assistance in this area should be performed by qualified paramedic staff, under the supervision of an anaesthetist.

The anaesthetist reports all clinical information and directions, determines the most appropriate type of surveillance/assistance, and decides when the patient can be moved out.

Here is a list of suggested equipment to be available in the recovery area

1. Recommended:

- pulseoxymeter;
- oxygen therapy devices (flowmeters, humidifiers, masks, collars, nasal catheters, etc.);
- Ambu bag or a breathing system allowing manual ventilation;
- suction;
- laryngoscope;
- endotracheal (ET) tubes of all internal diameters (ID);
- ECG monitor;
- thermometer.

2. Optional:

- capnograph;
- arterial blood pressure monitoring system;
- mechanical ventilator;
- infusion pumps and syringe drivers;
- defibrillator.

The need for these equipment is related to the type of patient and surgical illness you are dealing with.

ISVRA Task Force on Guidelines for Safety in Veterinary Anaesthesia

References

1. Raccomandazioni SIAARTI per la sorveglianza post-anestesiologica. Ed Minerva Medica 2001.
2. Pendeville Ph E, et al. Recovery room. In: Romano (ed). Anestesia generale e speciale. UTET: Torino, 1997.

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