Critical care for rabbit patients

An outline of the journey from dependence to independence in critically ill rabbit patients

Critically ill patients are often almost completely dependent on veterinary intervention for survival, and the question “Should care continue?” must be answered satisfactorily early in the process.

As a prey species, rabbits pose certain challenges when considering provision of critical care. In particular, the acute effects of adrenaline release (elevated heart rate and blood pressure, shunting of blood away from non-essential organs such as the gut), as well as the more chronic effects of adrenal stimulation (likely related to cortisol release causing immunosuppression) must be acknowledged and accounted for.

Both acute and chronically stressful situations can confound even the best attempts at care, so the question “Does the likely end outcome justify the means required to achieve this?” is a crucial one.

Regular goals and expected outcomes must be set and critically evaluated in terms of both veterinary and nursing care – the two are completely interlinked – in order to assess the progress of the patient and allow for adjustments in care. Knowledge of the individual animal, the owners and the larger situation will dictate at what point the patient can be discharged from care.

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What parameters should be looked at in terms of provision of critical care for the rabbit patient? If we consider this in terms of what the patient needs to be well enough to be discharged from care, we can produce a list of capabilities that need to be addressed:

- Can the animal breathe unaided? Is supplemental oxygen required?
- Can the animal effectively pump blood around the body? Is volume expansion required? Is therapeutic support of blood pressure or cardiac contraction required?
- Can the animal maintain fluid and acid-base balance? Is fluid therapy required?
- Can the animal voluntarily eat and drink? Does the animal require supported feeding, fluid therapy and pro-kinetics to improve gut motility? Are reasons why these treatments are needed clear?
- What is the primary cause of the patient’s illness? Is this being adequately addressed, alongside all the other factors? Are additional diagnostic procedures required?
- Is the animal mobile? Can it move voluntarily without pain or are both analgesia and passive movement/turning required?
- What about the teeth? A rabbit that has not eaten voluntarily even for a relatively short period of time will not be grinding its teeth down sufficiently to avoid the potential for developing acquired dental disease.

Many of the factors that need to be considered when delivering critical care are similar to those in other species; however, the specific issues relating to both acute and chronic stress and the gastrointestinal system are more species specific. See Table 1 for a more detailed list of parameters to consider in rabbits.

The critical care provision process

1. Assessment of presenting condition(s) in terms of dependence on intervention for survival (what is going on?)
2. Diagnosis of the underlying causes (why are these things happening?)
3. Planning of care (how are we going to correct and treat these conditions?)
4. Implementation of care (when do we need to decide if the treatment is working?)
5. Evaluation of outcomes – a dynamic process (evaluate, adjust and repeat)

Planning care

Planning care allows members of the care team to establish realistic outcomes and frame a timeline for specific outcomes. Evaluate the success or otherwise of current interventions and establish goals for each patient; these may be short, medium or long term, and the criteria for judging success must be defined.

Implementing care

Once the plan has been decided and the criteria for success or otherwise defined, care can start to be implemented. Regular monitoring of the effectiveness of care is crucial. Interventions should be on time and carried out promptly in the face of a change in the patient’s condition.