The Art of Patient Care

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Veterinary medicine is a combination of science and art. Science uses research evidence and data to guide it, while the art of healing relies on clinical experience, observation, patient or client feedback and the ability to interpret the patient’s state of mind. The patient’s behavioral response to treatment is the central focus in the art of patient care.

Patient Care can be defined as any interaction between the patient and the veterinary team in the clinic that promotes wellness or recovery from illness or injury and addresses the patient’s physical and emotional wellbeing. In order to fully appreciate the needs of patients we must have a thorough understanding of a broad range of both medical and surgical disorders. In critical care, a good knowledge of possible complications is essential for their early recognition, and thereby the prevention of potentially life-threatening abnormalities.

Patient care technicians should apply both the art and science of patient care to deliver optimal healthcare to the patient. Providing excellent patient care for the critical patient may be the difference between the patient surviving and thriving. The best technicians for critical care are the ones who are proactive and have forward thinking skills. They have the ability to diligently monitor their patient and observe subtle changes. Sometimes an emergency is obvious but sometimes it is not. Picking up on a new respiratory pattern or the slight agitation that the patient was not previously displaying will help you to detect an emergency in a timely manner.

The ability to assess accurately and rapidly marks the difference between a good veterinary technician and an excellent one. All patients in a potential emergency situation must be triaged. Triaging a patient is different than a physical exam. One of the fastest and most effect ways to assess a patient is using a RAP system; respiration, alertness, and perfusion. If the patient is experiencing a life threatening emergency identified by the RAP system then immediate treatment should be initiated. It is imperative that all medical care staff understand the importance of immediate interventions in the event of a true emergency. All staff should be trained in recognizing an emergency and initiating CPR.

Stabilization and treatment for critical cases often requires hospitalized care for extend period of time. There are a large number of general patient care considerations and it is important to create a care plan for each individual patient based on the uniqueness of that patient that caters to their physical, physiological, and psychological well-being. Care of hospitalized patients should promote wellness or recovery from illness or injury. Vital parameters of each system should be evaluated and treatment adjusted as needed. Patient care should help the recovering patient engage in normal behaviors and activities that it is unable to perform on its own.

A visual exam should be part of the critical care technician’s initial assessment and should happen quickly and as stress free as possible. Whether it is on initial presentation or when you are walking by a cage, a critical care technician must be always observing. We are not only looking for vomiting, diarrhea, hemorrhage but also mentation and respiratory status. Some patients will have changes in parameters such as mental status and respiratory effort if they sense they are being approached or watched. A quick visual exam is sometimes the difference between life and death.

The basic physical exam includes vitals such as; temperature, heart rate, pulse rate, respiratory rate, mucous membrane color, capillary refill time and mentation. It is important to remember that vitals are simply numbers
to measure each system's functions and physical exam should include parameters evaluated by a technician's knowledge of the patient. The assessment should include any degree of change in prior parameters, anxiety or agitation, discomfort, and behaviors. Monitoring changes in patient parameters and status is often referred to as recognizing trends. A great technician recognizes trends in their patients and when that particular patient stops following its trend they investigate a probable cause. We should be able to recognize if a patient is improving or declining. It is important to monitor your patient closely and recognize trends and not just put numbers in a box. Being a veterinary technician means you are an advocate for the patient.

It is important to establish protocols within the hospital to monitor each patient according to disease process and status. For example every stable patient should have a complete set of vitals and technician assessment every 4 hours while more critical patients are monitored continuously. However even if a patient is only scheduled to receive treatments every 4 hours it is important to continue a constant vigil on all patients to observe for decompensation and unplanned needs such as cage cleaning after soiling. Also, things such as fluid therapy and feeding tubes should be constantly monitored for patency and efficiency.

It is imperative that all veterinary technicians not only understand normal versus abnormal but the values that constitute an emergency as well as what is normal for that particular patient. Understanding disease processes and surgical procedures is essential when handling the needs of our hospitalized patients. It is also important to know what is normal for that particular patient before their treatment begins. This encompasses understanding medical treatments and their effects on our patients, the normal behaviors of our patients, both before and after treatments, and normal vital parameters of all species we are providing care to. It is also important for us to evaluate all numerical values and make assessments quickly on whether intervention is needed. Being above or below textbook normal parameters for veterinary patients do not always mean the patient is in crisis. For example; the normal temperature in small animals is often documented at 100-102.5F. While it may not be textbook normal most veterinarians are not concerned by temperatures unless they are below 99F or above 103F. Hypothermia is defined as temperatures below 96F and hyperthermia is 106F. While a temperature of 104F is an indication of a potential disease process the increased temperature itself is not an emergency. It is more important to understand that a patient whose temperature has been 100F for 12 hours has increased to 104F potentially indicating a change in a trend and it should prompt us to be investigating why the change occurred and evaluate our treatment plan.

<table>
<thead>
<tr>
<th>Vital</th>
<th>Normal</th>
<th>Emergency</th>
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<tbody>
<tr>
<td>Temperature</td>
<td>100-102.5F</td>
<td>Hypothermia below 96F Hyperthermia above 106F</td>
</tr>
<tr>
<td>Heart Rate *dogs</td>
<td>60-120bpm</td>
<td>Bradycardia under 60bpm Tachycardia over 160bpm</td>
</tr>
<tr>
<td>Heart Rate *cats</td>
<td>160-220bpm</td>
<td>Bradycardia under 180bpm Tachycardia over 230bpm</td>
</tr>
<tr>
<td>Pulse</td>
<td>60-120bpm</td>
<td>Different then heart rate Weak or thready</td>
</tr>
<tr>
<td></td>
<td>Easily palpable and strong</td>
<td></td>
</tr>
<tr>
<td>Respiratory Rate</td>
<td>20-40bpm</td>
<td>Tachypnea over 50bpm Panting in cats</td>
</tr>
<tr>
<td>Respiratory Effort</td>
<td>Smooth and mechanical</td>
<td>Any effort is abnormal</td>
</tr>
<tr>
<td>Mucous Membranes</td>
<td>Pink</td>
<td>Not pink Blue – decreased oxygenation Dark Red – infection, inflammation Pale pink/White- anemia, decreased perfusion Yellow (Jaundice) – Liver disease Grey (Muddy)- poor perfusion</td>
</tr>
<tr>
<td>Capillary Refill Time</td>
<td>1-2 seconds</td>
<td>Prolonged – poor perfusion</td>
</tr>
<tr>
<td>Mentation</td>
<td>Alert and Active</td>
<td>Decreased level of consciousness</td>
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Critical patients often need advanced patient monitoring and patient care technicians are intimately involved. Advanced monitoring often includes equipment. Monitoring should be tailored for each individual patient but there are specific parameters that should be a routine for any critical patient regardless of status. These parameters may include; blood pressure, electrocardiogram, SPO2, or end tidal CO2. Veterinary technicians should understand how equipment works, the pitfalls of monitoring, and troubleshooting techniques.

Critical patients require fluid therapy. Monitoring fluid therapy includes patient evaluation such as; Patient Hydration status and catheter site evaluation and equipment evaluation such as proper IV pump functions and IV line and catheters.

Urine output should also be monitored in critical patients and normal ranges are 1-2ml/kg/hr. Urine output is not only important to evaluate fluid therapy but to indirectly monitor perfusion and kidney function. Placement of a urinary catheter and closed collection system allows for close monitoring of urine output but it can also be measured by weighing absorbable pads catching voided urine.

Patient care technicians are frequently involved in performing the required calculations and preparing the infusion for fluids and CRIs. It is essential that infusions are clearly labeled with drug name and concentration, patient name, and both date and time of preparation.

Hospitalized patients are often on a number of different drug therapies and technicians are typically responsible for their administration. It is therefore important for technicians to have a good working knowledge of various aspects involving commonly used drugs such as pharmacodynamics, pharmacokinetics, side effects and interactions with other drugs. It is also important to understand important techniques involved in administering oral medications with causing unnecessary stress.

Patient care technicians should be encouraged to make pain assessments based on changes in patient’s behaviors in the hospital. Patient care technicians normally spend the most time with the hospitalized patient and should be able to pick up on subtle cues associated with patients experiencing changes in pain status. To keep pain assessments more objective, the use of pain scores by a knowledgeable staff is important. The pain assessment also involves recognizing when pain therapies are working and can confidently suggest other options for their patients.

Providing nutrition is very important for hospitalized patients. Most nutritional supplementation is ultimately decided by the Veterinarian but monitoring and recommending nutritional intervention is something technicians should be trained to do. Also, understanding the appropriate time and technique to carry out the nutrition plan is vital for the recovery of most hospitalized veterinary patients and something technicians should understand and be involved in.

Not all time spent in patient care should involve an unpleasant treatment based interaction with the patient. It is important that patients receive care that promotes their environment and ultimate experience. These interactions should include; TLC (grooming, walking, petting) and quiet time to rest.

Patient care of recumbent patients can be challenging. The following are some considerations a patient care technician should prepare for; Adequate bedding, rotation, passive range of motion exercises, elimination management, and oral and ophthalmic care.

Patient care technicians are usually involved in placement and care of tubes including; peripheral catheters, feeding tubes, urinary catheters, etc. It is important to not only ensure adequate placement and understanding of the goals and procedures of these tubes but the care and maintenance as well. All indwelling catheters and other tubes should be evaluated as needed but at least every hour to prevent complications.
Understanding diagnostics findings is also important for technicians. Diagnostics are ordered by the veterinarian but the technician should be involved in more than just knowing how to run the machines. It is important to recognize key values that may indicate changes in a patient's status. This leads to understanding the treatments that will be implemented by the technician.

Once a critical care technician has completed a physical exam including vitals and assessment, monitored any necessary advanced parameters they have gathered the tools to draw a conclusion and make a plan to contribute to the continuation of high-quality critical care. This plan should include anticipating a patient's needs associated with knowing the patient, any changes in status, and understanding the disease process. It is important that a critical care technician set realistic expectations for their patient and the healthcare the medical team can provide. Once establishing expectations and concluding a plan the veterinary technician can then implement the plan. This may require communication with the veterinarian if necessary to make major changes to the treatment plan.

As discussed above it is vital for the patient care technician to be able to evaluate the critical patient. It is also important to be able to evaluate the treatments already implemented and if they are contributing to the patient's care. Again, open communication with the veterinarian and other members of the healthcare team is necessary if the technician has concerns that the evaluation of the patient's status or current treatments are not meeting standards or expectations.

Critical care technicians should be knowledgeable and compassionate whenever speaking with owners of a pet in crisis. In order for clients to make rational decisions regarding their pet's care, it is important that they trust the veterinary team and that time is spent explaining the nature of the animal's problems, possible treatment options, complications, and prognosis. The owner should be made to feel at ease and to have confidence that their pet is being cared for in a professional and pleasant environment. The technician often plays a vital role in client communication.

Notes are important for all patients. Good, thorough, legible records are essential to provide details on how a case is being managed, including the rationale for treatment decisions, as well as information on the patient's progress and response to treatment. It is also important to pass on information about the patient's behavior and subtle changes you have noticed during their care for the next patient care technician to follow.

With this knowledge, skills in forward thinking and evaluation, we can become part of a very vital part of the medical care team for our patients.