

INFORMATION GUIDE FOR REFERRAL OF PATIENTS FOR COMPUTED TOMOGRAPHY (CT)

Considerations to take into account in patients who require a CT study to complement a diagnosis.

- For the referral of cases, it is necessary to have complete clinical history and current medication, information that should be provided by the referring veterinarian.
- Any information about previous procedures such as known allergies or response to other sedation/anesthesia to other previous sedation/anesthesia, as well as if the patient has undergone a previous CT study, should be a previous CT study, must be provided by the referring center.
- It is necessary to perform a complete blood test (maximum 10 days before the CAT scan) in order to know if there are possible organic alterations being of special interest renal parameters.
- In case of previous renal pathology, hospitalization with continuous fluid therapy for at least 48 hours is recommended continuous fluid therapy for at least 48 hours in order to reduce, as far as possible, the nephrotoxic effect of the contrast. In these patients, the performance of a biochemical control test a post-contrast biochemical control test should be considered in these patients.
- Cardiopathic patients may be more sensitive to contrast administration. contrast. Prior echocardiographic study and evaluation of the patient's clinical condition is recommended for clinical condition of the patient is recommended for the anesthetic procedure and contrast administration.
- In the case of patients with diarrheal processes, it is recommended that the patient be treated until complete remission to perform a CT study, due to possible complications associated with contrast possible complications associated with the administration of contrast.
- It is necessary to keep the patient between 10-12 hours of solid fasting and 4-6 hours forfor the liquid prior to the performance of the CT study.
- It is recommended to keep the patient hospitalized the night after the contrast, this being included in the CT budget.

THE TAC STUDY IS DIVIDED INTO THE FOLLOWING REGIONS:

1. HEAD (includes oral cavity, nasal cavity and brain up to C2)
2. COLUMN - SEGMENTS C1 - T2, T3 - L3, L4 - S3 (each segment is a region)
3. NECK

4. THORAX

5. ABDOMEN

6. ANTERIOR EXTREMITIES (shoulders, elbows, carpals: each segment, one region)

7. POSTERIOR EXTREMITIES (pelvis, knees, tarsi: each segment, one region).

MOST FREQUENT PATHOLOGIES, BY REGION, IN WHICH THE FOLLOWING WOULD BE INDICATED STUDY OF TAC:

HEAD REGION

- Patients with neurological symptomatology: an assessment by a neurological specialist is recommended prior to determining the diagnostic test to be performed (CT / CAT scan / MRI) among which could be found:
 - Seizures
 - Vestibular syndrome
 - Internal otitis interna
 - STROKE
 - Neoplasms
- Cranioencephalic trauma
- Skull fractures
- Oral cavity pathologies
 - Fractures of the mandible
 - Mandibular ankylosis secondary to trauma.
 - Periodontal disease
 - Oronasal fistulas
 - Glossopharyngeal Neoplasms
- Sinusitis/ rhinitis / nasal polyps / neoplasms / foreign bodies.
- Ocular and retrobulbar neoplasms
- Brachycephalic syndrome (pre-surgical study)

NECK REGION

- Atlantoaxial dislocation / subluxation
- Vertebral fractures
- Herniated discs
- Caudal cervical spondylomyelopathy or "Wobbler's Syndrome" (myeloTAC)
- Neoplasms / thyroid / parathyroid nodules
- Tracheal rupture (mainly due to trauma)

THORACIC REGION

- Mediastinal pathologies:
 - Lymphadenopathies,
 - Neoplasms,
 - Lesions of lymphatic vessels, nerves, esophagus, trachea, heart...
- Pathologies of pleura and pericardium:
 - Pleuritis/pericarditis,

- Pleural/pericardial effusion (hemothorax/ pyothorax/chylothorax/other - *prior drainage will always be performed*),
- Pneumothorax,
- Neoplasms

- Pulmonary pathologies:
 - Pneumonia,
 - Chronic bronchitis that does not respond to treatment (as a previous step to bronchoscopy and/or bronchoalveolar lavage with bronchoscopy and/or bronchoalveolar lavage with culture and cytological study),
 - Vegetative foreign bodies,
 - Lung lobe torsion,
 - Differentiation between consolidation/abscess/lung tumors,
 - Neoplasm/metastasis,
 - Pulmonary bullae,
 - Pulmonary thromboembolism

- Chest wall pathologies:
 - Pre-surgical workup for neoplasms,
 - Fractures

- Congenital pathologies/malformations:
 - Ductus, PDA (megaesophagus),
 - Deformities and other cardiac anomalies,
 - *Pectus excavatum*,
 - Complicated diaphragmatic hernias,
 - Aortic aneurysm

- Spinal pathologies:
 - Herniated discs (to be assessed by neurologist specialist technique to be used).
 - Vertebral dislocation and vertebral subluxation.
 - Vertebral fracture

- Lymphography
- Polytrauma
- Pre-surgical planning for thoracic surgery

ABDOMINAL REGION

* **Ultrasound** as the technique of choice in abdominal pathologies, with CT being a complementary test for surgical planning, oncologic assessment

for surgical planning, oncologic evaluation, detection of metastases...

metastases...

- Gastrointestinal pathologies:
 - Extra / intraluminal neoplasms....

- Intestinal/mesenteric torsion...
- Hepatic pathologies:
 - Neoplasm (pre-surgical study) / metastases.
 - Biliary tract pathologies.
 - Intra / extrahepatic shunt
 - Arteriovenous fistulas
 - Hepatic lobe torsion
- Pancreatic pathologies:
 - Neoplasms / abscesses / cysts.
- Spleen pathologies.
 - Neoplasms/metastases/hematoma/abscesses.
 - Splenic torsion
- Renal and urinary pathologies
 - Neoplasms/cysts (at renal level, ureters, bladder and urethra).
 - Ectopic ureters
- Endocrine pathologies:
 - Neoplasms
- Reproductive system pathologies:
 - Neoplasms
 - Hermaphroditism
 - Abdominal cryptorchidism.
 - Prostate (prostatitis, abscess, neoplasm, cysts).
- Spinal pathologies:
 - Herniated discs
 - Vertebral dislocation and subluxation.
 - Empyema
 - Disc spondylitis
 - Neoplasms
 - Vertebral fracture
- Thromboembolism
- Hernias: perianal / inguinal / peritoneopericardial / hiatal hernia
- Lymphography

EXTREMITIES REGION

* It is recommended that the technique be evaluated by a **specialist traumatologist** in order to evaluate

positioning according to pathology, as well as limitations in the interpretation according to the patient.

- Forelimbs:

- Shoulder / elbow dysplasia.
 - OCD
 - NUPA
 - Coronoid Fragmentation
 - Articular incongruence
- Calcification of the biceps tendon
- Fractures (preoperative planning)
- Neoplasms
- Hypertrophic osteopathy (CT scan of the thoracic region is recommended)
- Congenital deformities

- Hind limbs:
 - Knee arthrotac (DX: RLCA, meniscal tears).
 - Fractures (pre-surgical planning).
 - Neoplasms
 - Hypertrophic osteopathy (CT of thoracic region recommended).
 - Congenital deformities