Case Log Instructions for the EMSAVM and MAS

Internal Medicine

Case log explanations and instructions:

The case log for the **ESAVS Master / Internal Medicine** shall contain at least 200 cases mostly compiled in the second half of the program. Among the 200 cases, all shall be internal medicine patients. There shall be a minimum of 25% cats or 25% dogs, the remainder must be dogs or cats.

Each of the following categories shall have at least the following number of cases:

Gastroenterology (incl. hepatology and pancreatology):	40
Nephrology:	28
Respiratory:	22
Infectious diseases:	22
Endocrinology:	21
Neurology:	15
Immunology and clinical pathology:	15
Cardiology:	10
Oncology:	10
Emergency and Critical care:	10
Toxicology:	7

For each case, the following information is mandatory:

1. **Date:** give date of first presentation for current complaint
2. **Case identifier:** number in computer system or name of dog and owner
3. **Species:** dog or cat (use drop-down list)
4. **Breed:**
5. **Age and sex:** in years or months if < 1 year
6. **Primary care / referral:** referral or primary care (use drop-down list)
7. **Emergency / routine:** emergency or routine (use drop-down list)
8. **Major complaint / problems:** give all pertinent abnormal findings from history and physical examination
9. **Examinations:** list all tests performed and the pertinent abnormal findings
10. **Final diagnosis:** give all reached diagnoses
11. **Treatment / management**: list drugs (including dose and interval), surgical procedures, dietary and other management recommendations
12. **Outcome:** give follow-up results including time when performed. Depending on problem/diagnosis, reasonable follow-up is required.
13. **Organ system:** use drop-down list to choose appropriate organ system

The case log needs to be compiled as an excel file using the template in the appendix

Abbreviations may be used but must be explained at the beginning of the case log table List the cases in chronological order.

A case log may not be acceptable and may be rejected in its entirety if critical concerns regarding one or more categories result in a fail, regardless of whether all other required criteria are adequately met.

Example Case Log Internal Medicine

Major complaint/ problems	Examinations (Laboratory results, diagnostic imaging, etc.)	Diagnosis	Management	Outcome	Organ system
Vocalization, lethargy, anorexia, fever, severe neck pain	CBC: leukocytosis BC: IgA elevated RX neck region: no abnormalities CSF: mostly non-degenerated neutrophils, no bacteria, high IgA and total protein. Culture of CSF: negative after 48 hours	Steroid-responsive meningitis	Pain medication: Methadon 0,2 mg/kg q4h, later tramadol 1 mg/kg TID, and gabapentin 5 mg/kg TID Prednisolone starting at 2 mg/kg BID 2 days and very slowly reducing dosage. First 2 weeks omeprazole 1 mg/kg	Control of CSF after 8 weeks: normal. Prednisolone was given for 4 monhts in total. Control CSF at end of treatment: normal	Immunology and clinical pathology
Severe swelling of both eyelids, lips are also swollen. Pustulae on entire head but nowhere else. Submandibular lymphadenopathy. Fever (39,8°C).	Skin scrape: negative Impression smear of pustula: lots of neutrophils, some bacteria. After antibiotic therapy (cefalexin 20 mg/kg BID) at referral vet, lesions did not improve, so histopathology was performed which revealed a juvenile pyoderma.	Juvenile pyoderma	Cefalexin 20 mg/kg PO BID Prednisolone 1,5 mg/kg PO SID, after 14 days dose was gradually lowered. Treatment of the eyes with tobramycin (2 drops 5 times per day) and aculare (1 drop 3 times per day)	Good recovery although around the eyes here was permanent hair loss.	Immunology and clinical pathology
Weight gain despite restricted calories diet, lethargy, weak pulse, bradycardia	CBC: mild anemia BC: hypercholesteremia, low total T4 TSH: above normal values	Hypothyroidism	Levothyroxine 10 µg/kg po BID	Control after 6 weeks: dog is clinically not better still lethargy), but T4 still too low. Dosage was elevated to 15 µg/kg BID. Next control visit good clinical response and T4 in normal range.	Endocrinology
Excercise intolerance, panting, inspiratory stridor, BCS 7/9	CBC, BC, UA normal RX thorax: normal US heart: normal Laryngoscopy: elongation of the soft palate, eversion of laryngeal sacculi, thick base of tongue, laryngeal collapse 2nd degree	BOS	Surgery: resection of soft palate and the laryngeal sacculi Diet: Royal Canin obesity management	Dog is doing better but excercise intolerance not completely resolved, due to the BCS which is still 6/9 and the laryngeal collapse	Respiratory
PU/PD, polyfagia, abdominal distension, enlarged liver	CBC: leukocytosis, neutrophilia without left shift, lymphopenia BC: high ALP and ALP 65° UA: SG 1.010, no other abnormalities LDDST: suppression after 4h but high cortisol after 8h. No ultrasound and CT of the head were performed due to financial restrictions	Cushing's disease, probably pituitary dependant	Owner chooses medical treatment: trilostane 3 mg/kg SID (tablet of 30 mg Vetoryl ®) ACTH-stimulation test was performed after 14 days, 1 month and 3 months	Improvement of the PU/PD and polyphagia, ACTH-stimulation tests showed a correct dosage of trilostane.Dog was euthanised 6 months later due to severe status epilepticus	Endocrinology
Dog ate snail poison (metaldehyde) 5h ago. Now ataxia, tremors, hyperesthesia of the face, tachycardia, hyperemia		Metaldehyde poisoning	Fluid therapy Activated charcoal Diazepam 1 mg/kg IV was given and was repeated 2 more times	After 24 hours dog was doing a lot better but there was still some ataxia, dog went home. On control visit 3 days later dog was doing fine.	Toxicology
Chronic diarrea: large amounts, yellow color, appetite decreased, weight loss	Flotation: negative Giardia SNAP tet: negative CBC: low TLI and low cobalamin	Exocrine pancreas insuficiency with hypovitaminosis B12	3 meals per day of Hill's I/D Pancrex powder 2 tsp per meal Vitamin B12 5 µg/kg SC once weekly	Control visit after 6 weeks: normal vitamin B12 and most of the time the dog had normal stool. The dosage of Pancrex was gradually tempered, now on 2 meals per day and 1 tsp Pancrex powder per meal.	Gastroenterology

Example Case Log Internal Medicine

Continuously straining but no urine is coming out, large urinary bladder	RX: multiple stones in bladder and urethra	Urolithiasis causing urethral obstruction	Cystocenthesis to release pressure on bladder. Retrograde urohydropropulsion of stones in the urethra was attempted several times but one stone was stuck caudally of os penis, this stone was removed by urethrotomy. 40 small stones were removed by cystotomy. Analysis of uroliths: 100% cystin. A urinary catheter was left in place for 2 days. Postoperative medication: Fluid therapy, methadon 0,1 mg/kg, amoxiclav 12,5 mg/kg BID.	Dog went home after 3 days. He was placed on a diet: Hill's U/D because of the cystin urolithiasis. Owner did not consequently give this diet and the dog had a new obstruction 6 months later, which was also succesfully operated.	Nephrology
Lethargy, fever, dark urine, severe dyspnea, dog ate a intraruminal slow-release device for cows containing monensin 24h ago	BC: very high AST, high ALT, CK extremely high (318305 U/L) UA: myoglobinuria	Toxic myopathy due to monensin intoxication	oxygen supplementation and fluid therapy were started but because of rapid deterioration the dog was euthanised	Euthanasia	Toxicology
Stranguria, pollakisuria	UA: hematuria, borderline proteinuria, SG 1.040, negative culture. Microscopic examination: calcium oxalate crystals. BC: creatinin and ureum elevated, hypercalcemia US: Left kidney dilated pelvis, right kidney small with irregular wall, uroliths in bladder RX: also 2 uroliths visible in left ureter	Ureter obstruction, urolithiasis bladder, hypercalcemia (primary or secondary?)	First we tried to flush out the stones of the urethra with fluid therapy + furosemide 2 mg/kg TID. On a control RX 2 days later the stones were not present anymore in the ureter. Then we performed a cystotomy to remove the uroliths in the bladder. Analysis: 100% calcium oxalate. Post-operative: fluid therapy was continued for 3 more days, buprenorphine 0,02 mg/kg q6h, furosemide 1 mg/kg SID (to try to decrease hypercalcemia).	Clinical signs dissapeared after surgery. Cat is still doing fine after one year. The calcium value in the blood is normal now, but the cat is still azotemic. Diet: Royal canin renal select.	Nephrology
Since 6 months recurrent UTI symptoms: hematuria, pollakisuria. Was treated with antibiotic therapy (2 times amoxicillin clavulanic acid 1 week, 1 time trimetoprim sulfamethoxazole 10 days). Now again pollakisuria and hematuria, but also vaginal blood loss independent of micture.	Vaginal toucher: small mass was felt on 6 cm inside vagina. US abdomen: part of urethra which is visible, is thickened more in the middle than proximally, distal part not visible. RX thorax + abdomen: normal Endoscopy vagina, urethra and bladder: no visible mass where we previously felt something (probably fold which is now flat due to flushing), but around urethral opening in vagina and the middle and distal part of the urethra there are some dysplastic, polypoid changes. Mucosa starts bleeding very quickly. Histology: transitional cell carcinoma.	Transitional cell carcinoma urethra/vagina, no metastases visible	Piroxicam 0,3 mg/kg SID	Owner consulted a homeopathic veterinarian. He made them stop the piroxicam and started with some Chinese herbs in combination with accupuncture. 2 months later patient came back with severe hematuria and pain in the abdomen. As palliative treatment she was put on meloxicam 0,1 mg/kg SID and tramadol 1 mg/kg TID. Euthanasia 1 week later.	Oncology
Nausea, anorexia. Falling to one side, ataxia, head tilt and nystagmus to left side.	Neurological examination: except for the vestibular symptoms, no other abnormalities. Facial nerves normal. Otoscopy: normal No other examinations were performed (yet) due to cost considerations	Suspected vestibular geriatric disease	Maropitant 1 mg/kg SC	Next day dog was eating again, but still had the vestibular signs and now refused to stand up. We adviced the owner to take the dog outside several times per day and assist him to stand up. Complete recovery in 1 week.	Neurology

Example Case Log Internal Medicine

Frequent episodes of mucoid diarrea with tenesmus, nervous dog	Stool examination: negative flotation and giardia SNAP test, culture negative Rectal examination: normal Abdominal palpation: normal	Suspected of Irritable Bowel Syndrome	Hill's I/D sensitive food Fiber supplementation: Protexin Pro-Fibre Butylscopolaminebromide 0,2 mg/kg PO if severe diarrea/tenesmus	Dog responded well on the treatment so no further investigations were performed.	Gastroenterology
PU/PD, anorexia, weight loss, BCS 3/9, hypertension (systolic BP 170 mmHg)	CBC: mild anemia, neutrophilia without left shift, lymphopenia BC: azotemia, hypoalbuminemia SNAP test leptospirosis: negative UA: proteinuria US: decreased corticomedullar detail	glomerulonephritis with renal failure IRIS stage 3	Renal diet: Royal canin Renal Acetyl Salicylic Acid 0,5 mg/kg BID Benazepril 0,25 mg/kg SID Omeprazole 1 mg/kg SID	Initially clinical some improvement, but after one month increase of proteinuria and azotemia, dog was euthanised 3 months later	Nephrology
PU/PD, BCS 9/9	BC: hyperglycemia (23 mmol/l), no other abnormalities UA: glucosuria, no ketonuria, culture negative	Diabetes mellitus	Caninsulin was started at 10 IU BID (0.25 IU/kg), control of blood glucose weekly 6h after injection, adjusting dosage in steps of 15% until normoglycemic Diet: Trovet WRD	12/17: now on 22 IU BID and BCS 7/9	Endocrinology
Excercise intolerance, coughing during activity, had 2 syncopes, positive tracheal reflex (severe reaction), heart auscultation: murmur of 1/6 on mitral valve, BCS 7/9	Pro-BNP test: negative RX thorax: tracheal collaps on thoracic inlet	Tracheal collapse	Diet: Hill's metabolic Use of a harness instead of a collar for walking Prednisolone 1 mg/kg SID 5 days, gradually tempered dose Because of severe coughing also codeine was added: 0,5 mg/kg BID	There was some improvement but symptoms were not completely resolved. Other options were discussed with owner (performing bronchoscopy to visualize lower airways, surgery with stent) but owner did not want any further investigations or surgery.	Respiratory
Stranguria and dysuria for 3 days, now lethargic and large, painful bladder	BC: azotemia UA: hematuria, leukocytes, proteinuria, no cristals in sediment, culture negative	FLUTD with obstruction	Urine katheterisation, katheter left in place for 2 days with regular flushing of the bladder Hartmann infusion Pain management: Buprenorphine 10 µg/kg IV q6h Prazosin 1 mg/cat BID Diet: Hill's c/d urinary stress	After 1 week: azotemia dissolved, cat's doing fine, diet has to be given life long	Nephrology
During control visit of a newly adopted dog, a systolic heart murmur is diagnosed on the right side of the thorax	US heart: some dilatation of right atrium and ventricle, the tricuspid valve is dysplastic with a mild insufficiency	Tricuspid valve dysplasia	No medical treatment needs to be started yet.	Patient is monitored clinically every 3 months and a control US is performed yearly.	Cardiology
Paresis of hindlimbs. Shortened gait of forelimbs. Neck pain. Proprioception diminished both hindlimbs, deep pain stimulation and spinal reflexes normal.	RX with myelography: C6 is misshapen with elevation of the ventral contrast column surrounding the spinal cord.	Cervical spondylopathy	Owner only wants to try medical support, no surgery. Dexamethasone 1 mg/kg IV, then 1 mg/kg PO SID for 5 days, then gradually tempered dose. Tramadol 2 mg/kg PO TID Excercise restriction	Dog recovered somewhat the first week (proprioception increased, no more neck pain), but situation gradually worsened and dog was euthanised after 3 weeks.	Neurology
Partial anorexia, weight loss, lethargy	CBC: normal BC: hypercalcemia, no other abnormalities (also SDMA normal) FIV/FeLV negative Ionised calcium: elevated RX thorax: normal US abdomen: normal PTH: low	Idiopathic hypercalcemia	Fluid therapy with NaCl + Furosemide 2 mg/kg every 6h IV for 2 days. This helped to reduce the calcium concentration. Therapy at home: Diet: Hi k/d because of low calcium concentration Prednisolone 1 mg/kg BID	Clinical improvement after the fluid therapy. Control of SDMA and calcium every 3 months. Cat is now on 0.5 mg/kg prednisolone SID.	Endocrinology

Example Case Log Internal Medicine

Weight loss, PU/PD, tachycardia	BC: ALT, ALP, bilirubine elevated, high T4	hyperthyroidism	Methimazole 2,5 mg BID	Monitoring every 3 weeks until correct dosage of medication, now on 2,5 mg in the morning and 1,25 mg in the evening. Abnormal liver values normalised after 3 weeks.	Endocrinology
Frequent regurgitation since 10 days, now lethargic, tachypnea, fever	CBC: leukocytosis without left shift BC: CK mildly elevated RX thorax: alveolar pattern left cranial lung lobe, oesophagus dilated: mega-oesophagus We could exclude Addison's disease and hypothyroidism as the cause for the mega-oesophagus, but owner did not want any further investigations (endoscopy, ACh-antibodies, blood lead analysis, culture of BAL)	Mega-oesophagus with secondary aspiration pneumonia	Amoxiclav 8,75 mg/kg TID IV Methadon 0,2 mg/kg q4h Ranitidine 2 mg/kg TID Oxygen supplementation	Dog recovered from the aspiration pneumonia and did not relapsed so far. Dog is fed in upright position. He is still regurgitating a few times per week.	Gastroenterology
Weight loss, pale mucous membranes, diarrea	CBC: mild anemia BC: creatinine above reference value, hyperkalemia UA: normal US abdomen: normal, slightly enlarged prostate After ACTH stimulation test: cortisol <0.1 µg/dl	Addison's disease	Desoxycortone pivalate 2,2 mg/kg every 28 days Prednisolone 0,4 mg/kg SID	10 days after injection: K lower range, Na higher range but both within reference value, 28 days after injection K higher range, Na lower range but both within reference value. Dog receives desoxycortone every 28 days at the starting dosage and is now on 0,2 mg/kg prednisolone SID	Endocrinology
Panting, lethargy, anorexia since 1 day. Dyspnea, slightly cyanotic mucous membranes, temperature 39,3. Normal heart auscultation and frequency.	After stabilisation with oxygen. RX thorax: alveolar pattern caudodorsal, VHS 12 CBC no abnormalities BC: mild elevated ALT, hypoproteinemia clotting times not elevated US heart: severe dilatory cardiomyopathy	DCM	Oxygen supplementation Furosemide 4 mg/kg q6h IV Pimobendan 0,15 mg/kg q8h IV After stabilisation: Pimobendan 0,5 mg/kg divided in 2 doses PO Benazepril 0,25 mg/kg SID Spironolactone 2 mg/kg SID Torasemide 0,3 mg/kg SID, after one week 0,2 mg/kg SID Taurine 500mg 1 capsule BID Carnitine 500mg 2 capsules BID	Several underlying causes were excluded: Borrelia, Toxoplasma, Angiostrongylus, Dirofilaria, taurine or carnitine deficiency. Initially there was good improvement, but 3 months later the dog suddenly collapsed and died.	Cardiology
Collaps after a long walk, hyperthermia (41,4°C), tachycardia, panting, moderate pulse, CRT = 2 seconds	First cooling was started: dog was sprayed with lukewarm water and a fan was put on. After this blood and urine were taken: CBC: hemoconcentration BC: hyperproteinemia, mild azotemia Clotting times were still normal but there was a slight increase in D-dimers. UA: high SG, no other abnormalities	Heat stroke	Oxygen supplementation Continuing active cooling IV fluids: boli of 20 ml/kg until no more signs of hypovolemia Rigorously monitoring for signs of DIC.	Dog recovered and went home after 36 hours.	Emergency and Critical care

Example Case Log Internal Medicine

Frequently scratching of the ears (bilateral), vocalization (yelping), deafness	Ear inspection: bilateral abnormal ear drums, bulging. No signs of otitis externa. Dog was referred for MRI: Chiari-like malformation of the fossa caudalis with herniation of cerebellar tissue through the foramen magnum, syringomyelia of the cervical spinal cord C2-C5, bilateral primary secretory otitis media	Chiari-like malformation, syringomyelia, PSOM	Therapy was started with furosemide 1 mg/kg + robenacoxib 1 mg/kg Owners chose not to treat the PSOM (surgically)	After 3 weeks there was no result of treatment. Robenacoxib was replaced by gabapentine 10 mg/kg. This treatment also didn't reduce the symptoms, and prednisolone 0,5 mg/kg SID was added. Symptoms are now reduced for 50%. Electrolytes are checked every 3 months and a general bloodwork is performed every year.	Neurology
Coughing, stiff gait, anorexia, fever	CBC: leukopenia with left shift BC: mild elevation ALP UA: normal RX thorax: mild interstitial pattern caudally US abdomen: normal US heart: mild insufficiency of mitral and tricuspidal valve Blood culture (Bactec): positive	Septicemia, underlying cause could not be identified, endocarditis not excluded yet	Amoxiclav 20 mg/kg TID IV Enrofloxacin 5 mg/kg BID IV	Fever and other complaints dissapeared after 1 resp. 2 days, oral therapy was continued for 3 weeks. At control visit after 3 weeks the valve insufficiency is still present. cTNI was negative. Endocarditis less probable because there is no change in the cardiac parameters compared to the previous US.	Infectious diseases
Dysuria since 1 month: start of urination is normal but second part is dripping and straining	No abnormalities on general, rectal and neurologic examination. US: normal appearance of bladder and prostate, prostate not enlarged. Easy passing of a urinary catheter. Urinary examination: no abnormalities on stick and microscopic examination RX native: no abnormalities RX with positive contrast: normal filling of bladder and urethra	Functional urethra obstruction / Reflex dyssenergia	Prazosin 2 mg PO BID Delmadinone acetate 1,5 mg/kg SC	Control visit after 2 weeks: complaints are better but not completely resolved, rest volume > 20 ml, diazepam 2 mg TID was added to therapy. Also the dog received a deslorelin 4,7 mg implant. Control 2 weeks later: rest volume is better (10 ml) but sometimes dog is still straining.	Nephrology
Anorexia, lethargia, oliguria, painful abdominal palpation	CBC: mild anemia BC: severe azotemia UA: SG 1.020, wbc and rbc in sediment, proteinuria, glucosuria, culture negative US: enlarged liver, hyperechoic cortex of both kidneys, retroperitoneal steatitis	Hepatorenal syndrome: suspected of leptospirosis or, less probable, lymphoma.	Fluid therapy Follow-up of urine production Amoxiclav 8,5 mg/kg IV BID Ranitidine 1 mg/kg TID	Clinically better after 3 days: normal appetite, normal urine production. Antibiotic therapy was switched to doxycyclin because of suspicion of leptospirosis. After 5 days still moderate azotemia. Result of serology for leptospirosis was known after 10 days: MAT-titer L. australis 1:2000. Doxycycline was continued for 3 weeks.	Nephrology
Ventral cervical fixed mass	Cytology: suspicion of thyroid gland tumor, without signs of malignancy but probably thyroid carcinoma BC: T4 normal, no other abnormalities on blood work or UA RX thorax: no visible metastases but general interstitial lung pattern (probably age related) Histology after surgical excision: C-cell carcinoma US: no signs of invading in surrounding tissues, no signs of abdominal metastasis	C-cell carcinoma of thyroid gland	Surgery: thyroidectomy	Dog recovered well after surgery but started limping one month later, X-ray showed osteolytic lesion in left humerus strongly suggestive of neoplasia, primary osteosarcoma or metastasis of thyroid gland carcinoma. No biopsy or surgery were performed and after 2 weeks of palliative pain management the dog was euthanised.	Oncology

Example Case Log Internal Medicine

Weight loss, chronic diarrea	Blood work including vitamin B12 and folate: all normal. Fecal examination: culture campylobacter spp.	Food intolerance/allergy	Good response on hypoallergenic food	One month later: no more diarrea	Gastroenterology
Dog is treated several times with antibiotics for recurrent urinary tract infections. Now again pollakisuria and stranguria. Sometimes passive dripping of urine. No PU/PD. Wet skin in perivulvar region and hind legs.	UA of other vet 3 weeks ago: wbc in urine, culture positive for E. Coli. Antibiogram: no resistance. Dog was placed on amoxiclav 12,5 mg for 3 weeks. Now control UA: culture negative, no wbc anymore, normal SG. Rectal examination: sopping vagina, no palpable abnormalities of urethra. Vaginal examination: normal, although vagina is quite narrow. US abdomen: normal	Probably urinary sphincter mechanism incompetence (problems started 3 years after neutering, no anatomical problems detected) causing recurrent urinary tract infections	Phenylpropanolamine 1,5 mg/kg BID Cranberry tablets: 1 tablet SID one week per month to help prevent E. Coli infections.	4 months later dog is doing fine, no more dripping of urine, dog didn't have a urinary tract infection again.	Nephrology
Vomiting since 1 day, possibly ate plastic bag, anorexia, painful in cranial abdomen	US: Foreign object in stomach	Gastric foreign object	Surgery: removal of 2 plastic bags through gastrotomy Post-operative: Methadon 0,2 mg/kg IV q4h Cefalexine 20 mg/kg IV q8h Ranitidine 2 mg/kg q8h Gradually introducing small amounts of food (Hill's I/D)	After 3 days dog had normal stool and appetite.	Gastroenterology
PU/PD, weight loss	BC: hyperglycemia (17,3 mmol/l), elevated fructosamine UA: glucosuria, culture: E.Coli	Diabetes mellitus with bacterial cystitis	Amoxiclav 12,5 mg/kg BID 10 days ProZinc insulin was started at 0.3 IU/kg BID (2 IU) Control of blood glucose 5h after administration of ProZinc every 7 days and adjusting dosage by steps of 10%. Diet: Royal Canin Urinary moderate calory (because of struvite problems in the past)	Dosage of ProZinc was adjusted to 2,2 IE BID after 7 days because the glucose was 12 mmol/l, 7 days later 7,5 mmol/l, 2 weeks later 7 mmol/l. Control after 1 month: normal blood glucose and fructosamine, urinary infection resolved. The cat is now monthly checked (blood glucose) and still doing fine on 2,2 IU BID, stable weight.	Endocrinology
Melena, vomiting, lethargy, anorexia, dehydration. The dog is not vaccinated.	Blood glucose: 1,1 mmol/l CBC: leukopenia with left shift BC: pre-renal azotemia In house parvovirus antigen test: positive	Parvo	Glucose 50% boli until normal blood glucose level Fluid therapy Amoxiclav 12,5 mg BID IV Maropitant 1 mg/kg SID SC Metoclopramide 1 mg/kg IV over 24 hours Ranitidine 2 mg/kg IV TID Diet: Royal Canin convalescence support through nasopharyngeal tube	Dog recovered completely after 4 days	Infectious diseases
Chronic cough since 2 months, prolonged expiratory phase, positive tracheal reflex	RX: bronchial pattern and bronchiectasis BAL: neutrophils, mucus, no bacteria present	Chronic bronchitis	Fluticasone 1 puff BID Salbutamol 1 puff BID Use of a harness was recommended	Frequency of coughing quickly declined, dog did not need any oral medication. The dosage of fluticasone was reduced to 1 puff SID.	Respiratory