

Knowledge Summaries question generator

The identification of useful knowledge summary questions can be challenging. The aim of this resource is to provide a more systematic approach to achieving this aim. By providing defined lists of some important and/or common conditions by species and checklists of important categories of information needs this should prompt and support the generation of knowledge summary questions by authors.

We have listed common or important conditions for the following species.

Companion animals:

- Dogs
- Cats
- Rabbits
- Horses

Production animals:

- Beef cattle
- Dairy cattle
- Sheep
- Goats
- Camelids
- Pigs

The tables of conditions for each species include the following categories, which can be used to identify significant and important information needs and knowledge summary questions.

1. Epidemiology (risk factors)
2. Diagnosis
3. Treatment
4. Harm/improvement
5. Prognosis
6. Control (risk reduction)
7. Prevention (risk avoidance)

The species tables are followed by a detailed checklist list of factors to be considered within each category. These resources should be used together when identifying PICO questions for Knowledge Summaries.

DOGS Common conditions	Epidemiology	Diagnosis	Treatment	Harm	Prognosis	Control	Prevention
Minor trauma (cut pads, bite wounds)							
Acute otitis externa							
Atopic dermatitis							
Acute moist dermatitis							
Flea infestations							
Kennel cough							
Heart murmurs							
Osteoarthritis							
Epilepsy							
Conjunctivitis/corneal ulceration							
Lipomas							
Lymphoma							
Mammary tumour							
Chronic kidney disease							
Diabetes mellitus							
Hyperadrenocorticism							
Dental disease							
Pancreatitis							
Gastroenteritis							
Anal gland disease							
Obesity							
Cystitis							

DOGS Important conditions	Epidemiology	Diagnosis	Treatment	Harm	Prognosis	Control	Prevention
Rabies							
Leptospirosis							
Echinococcus							

CATS Common conditions	Epidemiology	Diagnosis	Treatment	Harm	Prognosis	Control	Prevention
Abscesses							
Cat flu (FCV/FHV)							
FIV infection							
Obesity							
Diabetes mellitus							
Hyperthyroidism							
Chronic kidney disease							
Gastroenteritis							
Lymphoma							
Osteoarthritis							
Minor trauma (torn claws, bite wounds)							
Lower urinary tract disease							
Ear mites, otitis externa							
Flea infestations, FAD							

CATS Important conditions	Epidemiology	Diagnosis	Treatment	Harm	Prognosis	Control	Prevention
Feline infectious peritonitis							
Rabies							
Mycobacteria							

RABBITS	Epidemiology	Diagnosis	Treatment	Harm	Prognosis	Control	Prevention
Abscesses							
Calicivirus (RHDV)							
Coccidiosis							
Ear mites							
<i>Encephalitozoon cuniculi</i>							
Fly strike							
Hairballs							
Hock sores							
Hyperthermia							
Myxomatosis							
Overgrown teeth							
Pasteurellosis (snuffles)							
Uterine tumours							

BEEF CATTLE	Epidemiology	Diagnosis	Treatment	Harm	Prognosis	Control	Prevention
Bovine respiratory disease complex							
BVD							
Calf diarrhoea							
Calf pneumonia							
Clostridial diseases							
Cobalt deficiency							
Copper deficiency							
Hypomagnesaemia							
Infectious bovine rhinotracheitis							
Johne's disease							
Leptospirosis							
Lice							
Liver fluke							
<i>Neospora caninum</i>							
New Forest eye (Infectious bovine keratitis)							
Parasitic gastroenteritis							
Selenium deficiency							

DAIRY CATTLE	Epidemiology	Diagnosis	Treatment	Harm	Prognosis	Control	Prevention
Blue tongue							
Bovine tuberculosis							
Bovine viral diarrhoea							
Calf diarrhoea							
Calf pneumonia							
Digital dermatitis							
Endometritis							
Hypocalcaemia							
Infectious bovine rhino-tracheitis							
Johne's disease (<i>Mycobacterium avium</i> paratuberculosis)							
Left displaced abomasum							
Leptospirosis							
Liver fluke							
Lungworm							
Mastitis (<i>Staphylococcus aureus</i>)							
Mastitis (<i>Streptococcus uberis</i>)							
Negative energy balance							
Neospora caninum							
New Forest eye (infectious bovine keratitis)							
Ovarian cystic disease							
Parasitic gastroenteritis							
<i>Schmallenberg</i>							
Solar ulcers							
White line disease							

PIGS	Epidemiology	Diagnosis	Treatment	Harm	Prognosis	Control	Prevention
Enteric colibacillosis (E. coli) diarrhoea							
Erysipelas							
Glasser's disease							
Greasy pig disease							
Joint ill							
Mastitis, metritis, and agalactia							
<i>Mycoplasma hyponeumonia</i>							
Porcine dermatitis and nephropathy syndrome (PDNS)							
Porcine intestinal adenomatosis							
Porcine reproductive and respiratory syndrome virus (PRRS)							
Post-weaning multi-systemic wasting syndrome (PMWS)							
Salmonellosis							
Sow pressure sores							
Swine dysentery							
Tail biting							
Thin sow syndrome							

SHEEP	Epidemiology	Diagnosis	Treatment	Harm	Prognosis	Control	Prevention
Abortion (chlamydial)							
Abortion (toxoplasmosis)							
Caseous lymphadenitis							
Clostridial disease							
Coccidiosis							
Ectoparasites							
Endoparasites							
Fly strike							
Foot rot							
Hypoglycaemia							
Hypothermia							
Jaagsiekte (OPA)							
Johne's disease							
Liver fluke							
Mastitis							
Mineral deficiencies							
Obstructive urolithiasis							
Orf							
Pasteurellosis							
Scald in lambs							
<i>Schmallenberg</i>							
Sheep scab							

GOATS	Epidemiology	Diagnosis	Treatment	Harm	Prognosis	Control	Prevention
Caprine arthritis and Encephalitis							
Caseous lymphadenitis							
Clostridial diseases							
Coccidiosis							
Disbudding							
Ectoparasites							
Endoparasites							
False pregnancy (Cloudburst)							
Johne's disease							
Local anaesthetics							
Xylazine							

CAMELIDS	Epidemiology	Diagnosis	Treatment	Harm	Prognosis	Control	Prevention
Endoparasites							
Hepatic lipidosis							
Mange (chorioptic/sarcoptic/psoroptic)							
Tooth-root abscessation							
Vitamin D deficiency							

HORSES	Epidemiology	Diagnosis	Treatment	Harm	Prognosis	Control	Prevention
Allergic skin disease							
Arthritis							
Atypical myopathy							
Azoturia							
Back problems							
Bot fly infestations							
Cataracts							
Choke							
Colic							
Conjunctivitis							
Cushing's disease							
Dental problems							
Desmitis							
Eye ulcers							
Foot abscess/white line disease							
Gastric ulceration							
Grass sickness							
Influenza (flu)							
Intestinal parasitism							
Laminitis							
Melanoma							
Mud fever							
Navicular disease or syndrome							
Obesity							
Osteoarthritis							
Persistent (allergic) respiratory disease							
Poorly defined lameness							
Rain scald							
Recurrent airway obstruction, heaves, equine asthma							
Sarcoid							
Stereotypies							
Strangles							
Stereotypical behaviour							

Sweet itch						
Uveitis						
Skin wounds						

More details on information needs

Epidemiology

Risk factors:

- Risk factors that determine the occurrence and distribution of disease in a population?
- Incubation period?
- How long can the organism survive outside the host?
- What factors influence this survival?
- Method of spread?
- How contagious is the organism?
- Carrier state?
- Are all carriers excreting the organism?
- Is the carrier state lifelong?
- Are all infected animals clinically affected?
- Is there a screening test?
- What is the sensitivity and specificity of the test?
- How long does it take for the serological antibodies to rise following infection?
- How long do the antibodies persist following infection?
- Are serological antibodies an indication of protection?
- How good is the protection, afforded by the vaccine?
- Can the vaccine be used in the face of an outbreak?
- How quickly and what level of protection is provided?
- Can vaccinated animals be distinguished from naturally infected animals?

Diagnosis

Clinical presentation – differential diagnosis:

- Sensitivity and specificity of the clinical signs for the disease?
- Prevalence of the disease?
- What is known about the pathophysiology of the disease?

Diagnostic tests/further investigations:

- Accuracy of the test?
- Specificity of the test?
- Sensitivity of the test?
- Disease prevalence?
- Sample type?

Treatment

Drug therapies:

- Efficacy
- Dose
- Frequency
- Length of treatment
- Combinations of drugs
- Costs
- Harm caused by treatment versus harm caused by disease
- Residues/withdrawal time
- Relative performance compared to other drug interventions

Surgical procedures:

- Success rates and comparative success rates
- Persistency of outcome
- Costs and required expertise

Other treatments and patient management protocols:

- Success rates
- Costs
- Frequency
- Comparative efficiency

Measurement of improvement/harm

It would be useful to be able to provide the owner with a probability that the treatment will be successful. Effective treatments operate by improving outcomes of a disease. Such an improvement should be considered in two ways:

- Increasing the likelihood of a good outcome (e.g. increased survival)
- Decreasing the likelihood of a bad outcome (e.g. reduced mortality).

Terms to consider when asking questions about treatment or harm caused by treatments are:

- Absolute risk reduction
- Relative risk reduction
- Number needed to treat
- Number needed to harm

Does the reduction in consequences of the additional risk warrant the cost of reducing or removing exposure?

Prognosis

Consider:

- Impact on the patient and the owner regarding life quality
- Prognostic indicators of outcomes and survival
- Timing

Owners benefit from knowing when an outcome can be expected, particularly if the condition is progressive, debilitating, and invariably fatal. The pattern of survival over time, and the quality of life over time, are important considerations in a fatal disease:

- As a percentage of survival at a particular point in time
- As a median survival (the length of time by which 50% of study patients have had the outcome)
- As a survival curve that depicts at each point in time the proportion (expressed as a percentage) of the original study sample who have not yet has a specified outcome.

Does the awareness of the likelihoods of the various outcomes over time help the owner/veterinarian make important decisions about the future of the animal?

Control (risk reduction)

Have I identified all the important risk factors associated with the epidemiology of the disease?

Does the reduction in risk justify the cost/effort of reducing the exposure by prophylactic treatment and/or vaccination?

Prevention (risk avoidance)

Have I identified all the important risk factors associated with the epidemiology of the disease?

Does the risk avoidance justify the cost/effort of removing the exposure by prophylactic treatment and/or vaccination?