A Necropsy Study of Disease and Comorbidity Trends in Morbidity and Mortality in the Koala (*Phascolarctos cinereus*) in South-East Queensland, Australia.

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Supplementary Table S1: Single (Total: N=220) and co-ocurring (Total: N=299) diagnoses made of koalas submitted to wildlife hospitals and receiving necropsies at The University of Queensland between April 2013 and July 2016 in South-East Queensland, Australia.

| Diagnoses | Co-morbidity (N diagnoses) | |
|--|-------------------------------|------------|
| | Absent | Present |
| Infectious | 31.8% (70) | |
| Infectious (multicentric) | | 32.1% (96) |
| Infectious/neoplasia | | 4.3% (13) |
| Infectious/neoplasia/senescence | | 1.0% (3) |
| Infectious/neoplasia/senescence/other diseases | | 0.3% (1) |
| Infectious/other diseases | | 7.7% (23) |
| Infectious/senescence | | 15.1% (45) |
| Infectious/senescence/other diseases | | 3.0% (9) |
| Infectious/senescence/trauma | | 1.3% (4) |
| Infectious/trauma | | 18.4% (55) |
| Infectious/trauma/other diseases | | 2.0% (6) |
| Infectious/trauma/senescence/other diseases | | 0.7% (2) |
| Neoplasia | 6.4% (14) | |
| Neoplasia/infectious | | 0.3% (1) |
| Neoplasia/infectious/other diseases | | 0.3% (1) |
| Neoplasia/other diseases | | 0.7% (2) |
| Neoplasia/senescence | | 1.3% (4) |
| Neoplasia/trauma | | 0.7% (2) |
| Other diseases | 4.1% (9) | |
| Senescence | 3.6% (8) | |
| Senescence/other diseases | | 1.7% (5) |
| Trauma | 42.7% (94) | |
| Trauma/other diseases | | 3.0% (9) |
| Trauma/senescence | | 1.0% (3) |
| Undetermined | 3.6% (8) | |
| Wasting unknown cause | 7.7% (17) | |
| Wasting unknown cause/other diseases | | 0.3% (1) |
| Wasting unknown cause/trauma | | 4.3% (13) |
| Wasting unknown cause/trauma/other diseases | | 0.3% (1) |

Supplemental Material S2. Clinical guidelines for the diagnoses of conjunctivitis and cystitis in koalas according to the Standard Operating Procedures by the Moggill Koala Rehabilitation Center, in Queensland, Australia, 2017.

| Condition | Score | Severity | Criterion |
|----------------|-------|----------|---|
| Conjunctivitis | 1 | Mild | Acute membrana nictans inflammation lacking proliferative change with epiphora |
| | 2 | Moderate | Mild conjunctiva and membrana nictans proliferation with serous exudate, |
| | | | Keratitis may or may not be present, or periorbital alopecia |
| | 3 | Severe | Chronic conjunctiva and membrana nictans inflammation |
| | | | Mucopurulent discharge causing eyelid adhesion, |
| | | | Possible conjunctival bleeding, |
| | | | Keratitis leading to partial or total corneal opacity, |
| | | | Focally extensive periorbital alopecia |
| Cystitis | 1 | Mild | Common vestibule is slightly or moderately soiled |
| | 2 | Moderate | Soiled common vestibule, incontinence evident from dribbling micturition, urine odor present, tacky fur |
| | 3 | Severe | Soiled common vestibule with matted fur, fur loss, |
| | | | Excoriation, incontinence, hemorrhagic dysuria, associated with low BC |

Supplementary figure S1: Percentage of koalas with gross lesions compatible with chlamydiosis across all body systems affected, stratified by sex. Koalas were submitted to South-East Queensland hospitals and receiving necropsies at The University of Queensland from 2013 through to 2016 (N=304).

