Development, validation and results of a national database recording "Johne's disease-suspect" lymph nodes in New Zealand farmed deer

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Concurrent with an increase in the prevalence of clinical Johne's disease (JD) on New Zealand deer farms, there has been an apparent increasing prevalence of both enlarged and pathologically lesioned visceral lymph nodes at slaughter, presumed to be due to infection with the causative bacteria, *Mycobacterium avium* subspecies *paratuberculosis* (*MAP*). A national database developed and validated by the authors, which was established in 2007, contains information on every deer slaughtered commercially in New Zealand and, specifically, holds data based on meat assessor identification and recording of enlarged or lesioned (i.e. 'JD-suspect') lymph nodes. However, gross lymph node changes potentially attributable to *MAP* are indistinguishable from those due to infection with other pathogens such as *Mycobacterium bovis*, *Mycobacterium avium* subspecies *avium*, *Actinobacillus lignieresi* or internal parasites. The challenges and processes involved in the development and validation of data entered into this database are discussed, including the accuracy of meat assessor detection of JD-suspect lymph nodes, determination of the actual prevalence of *MAP* as the cause of JD-suspect lymph nodes and the correlation between the presence of JD-suspect lymph nodes at slaughter and occurrence of clinical JD on-farm. While the database is now owned and managed by Johne's Management Limited (JML), a company funded by New Zealand deer processors, ongoing data analysis is undertaken by the authors in the EpiCentre, Massey University. The methodology for providing feedback to farmers about their MAP status and recommendations will be presented along with results of a spatial and temporal analysis data from the first 24 months.