In Vitro Antimicrobial Susceptibility of *Helicobacter suis*

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Helicobacter (*H.*) *suis* is a porcine gastric pathogen, which is also considered to be of zoonotic importance. No *in vitro* antimicrobial susceptibility data are available for this very fastidious micro-organism that only grows on a biphasic culture medium. Therefore, a combined agar and broth dilution method followed by a standardized *H. suis* specific quantitative real-time PCR (qPCR) assay was used to analyse the activity of 9 antimicrobial agents: ampicillin, ceftiofur, clarithromycin, enrofloxacin, gentamicin, lincomycin, metronidazole, tetracycline, and tylosine. After 48 hours microaerobic incubation, minimal inhibitory concentrations (MICs) were determined for 9 *H. suis* isolates by software-assisted calculation of bacterial growth. One, one and three isolates displayed acquired resistance to enrofloxacin, lincomycin and ceftiofur, respectively, as indicated by a bimodal distribution of the MICs. The MICs of ampicillin displayed a monomodal distribution, but with tailing toward the higher MIC values for 5 isolates, possibly indicating reduced susceptibility. For the other antimicrobial agents a monomodal distribution of MIC values was observed, indicating absence of acquired resistance, although in 7 isolates, MICs of metronidazole were equal or higher than the breakpoint proposed for *H. pylori*. The significance of the findings presented here for treatment of humans or animals infected with *H. suis* needs further investigation.