

Results Nasal MRSA carriage was found in 3.2% of the participants, predominantly at the start of the slaughter line. Major risk factors for carriage were working in the lairage, scalding and dehairing area. Nasal isolates predominantly (73%) belonged to the LA-MRSA clone ST398. A clear decrease was seen along the slaughter line in the number of MRSA positive samples and MRSA colony count per sample, both by culturing and qPCR calculated to estimated equivalent CFUs.

Conclusions This study showed that working in the lairage, scalding and dehairing area were the major risk factors for MRSA carriage in pig slaughterhouse workers, with a low overall prevalence. Occupational exposure to MRSA in air and on hands decreases along the slaughter line and parallels carriage risk.

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QUANTITATIVE EXPOSURE OF PIG SLAUGHTERHOUSE WORKERS TO LIVESTOCK-ASSOCIATED MRSA ST398

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Objectives Livestock-associated MRSA occurs frequently in pigs and has become an occupational risk for livestock farmers and veterinarians. Slaughterhouse personnel are also exposed to live animals, and have frequent contact with dead animals and meat products. This study estimates exposure of pig slaughterhouse workers by quantifying MRSA in air and on hands, and assesses MRSA carriage risk factors.

Methods Nasal swabs were collected from 341 workers from three Dutch pig slaughterhouses in a cross-sectional study, and analysed to determine MRSA carriage. MRSA exposure in air and on workers' gloves was quantitatively determined by culturing of MRSA and qPCR targeting ST398, SCCmec and mecA. Questionnaires were used to collect data on potential risk factors.