**Supplementary table 1**: Logistic regression analysis on the 28 risk factors considered

| Factors | B | Standard error | Sign. | Exp(B) | 95% confidence interval for Exp(B) | |
|---|---|---|---|---|---|---|
| | | | | | Lower limit | Upper limit |
| Intercept | -4,005 | 1,725 | 0.020 | | | |
| Number of cows | ,008 | ,006 | ,174 | 1,008 | ,996 | 1,020 |
| N. of milking operators | ,073 | ,676 | ,913 | 1,076 | ,286 | 4,048 |
| Altered teat proportion (%) | ,121 | ,070 | ,083 | 1,129 | ,984 | 1,295 |
| Proportion of animals with clean udders (%) | -,008 | ,013 | ,380 | ,537 | ,992 | ,967 |
| Deep litter (vs. cubicles) | -1,385 | ,815 | ,089 | ,250 | ,051 | 1,238 |
| No bacteriological analysis on bulk tank milk (vs. presence) | -,990 | 1,714 | ,564 | ,372 | ,013 | 10,697 |
| No therapy at dry-off (vs. selective dry cow therapy with protocol) | -,085 | 1,182 | ,943 | ,918 | ,091 | 9,313 |
| Selective dry cow therapy without protocol (vs. Selective dry cow therapy with protocol) | ,102 | ,932 | ,913 | 1,107 | ,178 | 6,878 |
| Use of not registered products for therapy (vs. registered ) | 1,100 | 1,066 | ,302 | 3,004 | ,372 | 24,282 |
| Use of not registered and registered products for therapy (vs. registered ) | ,681 | 1,837 | ,711 | 1,976 | ,054 | 72,337 |
| No use of teat sealant (vs. use) | ,222 | ,863 | ,797 | 1,249 | ,230 | 6,781 |
| Bucket or milk-pipeline in free-stall (vs. milk parlour) | 2,215 | ,947 | ,019 | 9,161 | 1,432 | 58,611 |
| No teat cleansing (vs. cleansing) | -1,946 | ,938 | ,038 | ,143 | ,023 | ,898 |
| Teat cleansing with water (vs. cleansing foam) | -1,406 | ,958 | ,142 | ,245 | ,038 | 1,602 |
| Incorrect teat drying (vs. correct) | ,508 | 1,327 | ,702 | 1,662 | ,123 | 22,393 |
| No teat drying (vs. correct) | -,618 | 1,167 | ,596 | ,539 | ,055 | 5,308 |
| Occasional or absent forestripping and observation of the first milk streams (vs. forestripping and observation) | -3,251 | 1,609 | ,043 | ,039 | ,002 | ,907 |
| Insufficient or absent teat disinfection (vs. disinfection with registered products) | 4,004 | 1,464 | ,006 | 54,830 | 3,109 | 966,855 |
| Teat disinfection with unregistered products (vs. disinfection with registered products) | 2,483 | 1,124 | ,027 | 11,983 | 1,325 | 108,405 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Frequent oxytocin use (vs. no use) | 2,347 | 1,032 | ,023 | 10,453 | 1,384 | 78,952 |
| Occasional oxytocin use (vs. no use) | ,858 | 1,016 | ,398 | 2,357 | ,322 | 17,256 |
| Calving pen: absence or calving in cubicles (vs. presence) | 1,140 | 0,692 | 0,100 | 0,3127 | 0,805 | 12,147 |
| Animals purchase: from 1 to 5 animals (vs.0) | 2,902 | ,922 | ,002 | 18,202 | 2,987 | 110,924 |
| Absence of routine monthly milk sampling and analysy (vs. presence) | 2,523 | ,779 | ,001 | 12,464 | 2,705 | 57,420 |
| No nursing (vs. presence) | 1,073 | ,702 | ,126 | 2,924 | ,739 | 11,567 |
| No holding area (vs. presence) | -,951 | ,631 | ,132 | ,386 | ,112 | 1,332 |
| No hospital pen (vs. presence) | -1,092 | ,933 | ,242 | ,336 | ,054 | 2,088 |