|  |  |  |  |
| --- | --- | --- | --- |
| **Disease / agent** | **Illness episodes** | **Hospitalizations**  |  **Deaths** |
| **BACTERIAL** |  |  |  |
| *Campylobacter spp.* | 1 963 141 | 10 539 | 99 |
| *Clostridium perfingens* | 248 520 | 41 | 7 |
| *E.coli 0157* | 62 458 | 1843 | 52 |
| *Listeria monocytogenes* | 2493 | 2298 | 499 |
| *Salmonella* | 1 341 873 | 15 608 | 553 |
| *Vibro cholerae* | 49 | 17 | 0 |
| *Other known bacteria* | 557 031 | 6120 | 87 |
| **PARASITIC** |  |  |  |
| *Cryptosporidium parvum* | 30 000 | 199 | 7 |
| *Giardia lamblia* | 200 000 | 500 | 1 |
| *Toxoplasma gondii* | 112 500  | 2500 | 375 |
| *Other known parasites* | 14 690 | 20 | 0 |
| **VIRAL** |  |  |  |
| *Norwalk-like viruses* | 9 200 000 | 20 000 | 124 |
| *Rotavirus* | 39 000 | 500 | 0 |
| *Astrovirus* | 39 000 | 125 | 0 |
| *Hepatitis A* | 4170 | 90 | 4 |
| **TOTAL** | 13 814 925 | 60 400 | 1808 |
|  |  |  |  |
|  |  |  |  |

Table 1 estimated illnesses, hospitalizations and deaths caused by pathogens capable of being food bourne.

Table 1 presents data from a study on the extent of mainly food bourne infections in a population of 275 million people during 1948 to 1997. An illness episode (or case0 refers to a period f illness resulting from a foodbourne infection (so more than one episode can be experienced by the same individual in the same year) and similarly the data on hospitalizations refer to the number of periods of inpatiant stay, not the number of people affected

Q1)

Calculate the case fatality rate for *Toxoplasma gondii* from above table, please show all working.

Q2)

 What are the two infectious agents that pose the greatest health risk to infected individuals, for each infectious agent chosen, describe why you decided to choose them.

Q3) what is the annual incidence of illness episodes due to food bourne *Campylobacter* infections in the surveyed population during the period of the study- please show full working out!

Thanks for all your help!