Knowledge, attitudes and practice among healthcare workers at risk of acquiring Crimean-Congo haemorrhagic fever

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Background: Crimean-Congo haemorrhagic fever (CCHF) has been an emerging zoonosis in Turkey since 2002. Between 2002-2015, 9785 confirmed cases had been reported to Ministry of Health of Turkey with a 4.8% case fatality rate. During the outbreak unfortunately five health care workers (HCWs) died due to exposure to CCHF virus. This study was therefore conducted to assess knowledge and practices of HCWs in infectious diseases and emergency units of CCHF reference centres in Turkey.

Material/methods: This cross sectional study was conducted in 10 hospitals in 2015. Since these hospitals are designated as CCHF referral tertiary care centers and are distributed geographically throughout CCHF endemic region. The questionnaire has four parts; part one: sociodemographic characteristics of healthcare workers (medical doctors, nurses and allied health personnel), part two: knowledge on CCHF transmission, part three: organizational and behavioural factors, and part four: occupational exposure to human CCHF. Knowledge scores and the influence of demographic characteristics were evaluated. Also the participants divided into two groups; group I: HCWs who
worked for management of CCHF, group II: HCWs who did not work for management of CCHF. The questionnaire and study protocol were approved by the OndokuzMayis University clinical research ethics committee.

**Results:** Total of 966 forms was distributed, and 626 (64.8%) were evaluated out of 649 fulfilled. Out of 626 participants 333 (53.2%) were females, 293 males (46.8%) There was no significant relationship between knowledge on CCHF transmission and age, sex, work experience and profession (p>0.05). Group I and II had similar knowledge scores. (p>0.05). The rates of getting education in groups I and II were 87.5% and 52.5% respectively (p<0.001). 71.2% and 60.5% of group I respondents felt themselves had adequate knowledge and skill whereas 28.8% and 15.6% in group II, respectively (p< 0.001). Fear of death due to being infected with CCHF was present 44.6% in group I and 86.9% decided to leave job. Among group I cases 96.5% used personnel protective equipment (PPE) and 98.8% performed hand washing entering the room of a patient with CCHF. Usage of PPE was higher in HCWs in infectious disease department than that of emergency department (p<0.001).

**Conclusions:** Education of HCW who does not care patients with CCHF was not enough. Therefore periodic education about transmission and prevention of CCHF is needed for all HCWs. To increase the best practice of controlling CCHF exposure, employees of infectious disease and emergence departments should be encouraged to use PPE. Although the mortality rate of CCHF is 4.8% in Turkey, CCHF causes fear of death in HCWs. Giving accurate information about the disease may decrease fear of death and considering of leaving work.