Dangers of COPD and asthma under-recognised among Hajj pilgrims

Every year, during Dhul Hijjah, the 12th month of the Islamic calendar, over 2 million people from around the world gather in Mecca, Saudi Arabia, to take part in the Hajj. As one of the five pillars of Islam, all able-bodied Muslims are required to undertake the Hajj at least once in their lifetime if they can afford to do so. Quotas are imposed by the Saudi Government to prevent overcrowding, limiting the numbers from each country to 1000 pilgrims per million Muslim population per year. Such is the demand to go on the Hajj, there is, for example, currently a 70-year wait for would-be Malaysian pilgrims. Given the enormous spiritual significance of the Hajj, the considerable wait times, and the very substantial expenses involved—particularly for those coming from resource-poor environments—it is of concern that for many pilgrims, their Hajj experience is marred by health problems. Mortality rates among pilgrims are high, ranging from 200 to 380 deaths per 100,000 persons during the Hajj period. Respiratory diseases are by far the most common health problem, accounting for nearly 40% of admissions to hospitals in Mecca and 28% of mortality during the Hajj. Previous work has highlighted the considerable disease burden posed by infectious respiratory diseases, but exacerbations of chronic respiratory conditions have received less attention.

The Hajj is physically demanding. Lasting over 5 days, pilgrims are required to walk 5–15 km a day from Mecca to Mina and Arafat and back again in the extreme desert environment where temperatures can exceed 40°C. Overcrowding during rituals and in accommodation provides an environment that is conducive to the rapid spread of respiratory infections. In pilgrims with pre-existing long-term respiratory conditions—in particular, asthma and chronic obstructive pulmonary disease (COPD)—the combination of physical exercise (to which many are unaccustomed), the dusty environment, development of respiratory tract infections, and poor adherence with preventer therapies (on account of the disruption of normal routines) can lead to exacerbations of their asthma and COPD. Studies have shown that 15–22% of people admitted to hospital in Mecca during the Hajj season had a pre-existing chronic respiratory condition.

Focusing on health issues during the Hajj offers opportunities to improve outcomes. A prime example of an effective intervention is the absence of Hajj-associated outbreaks of meningitis after vaccination was made mandatory for all pilgrims. We now need similar strategies to improve outcomes for those with longstanding respiratory conditions; for example, by optimising control and advising on self-management for pilgrims with asthma or COPD before they leave for the Hajj.

Some countries have implemented pre-Hajj health screening programmes before departure and medical support programmes for their pilgrims while they are in Mecca. Examples include Malaysia and Indonesia where pilgrims attend health checks provided by the government before the Hajj and medical teams accompany the group throughout the pilgrimage. These programmes have tended to focus on ensuring pilgrims are vaccinated and infections are managed, but they are now extending their scope to optimise care and outcomes for chronic health conditions.

RESPIRE, a Global Health Research Unit funded by the NHS National Institute for Health Research, is embarking on a programme of work with the aim of developing, assessing, and implementing interventions to optimise asthma care among Hajj pilgrims. Initial work in Malaysia will extend to partners in Bangladesh, India, and Pakistan with the ultimate aim of reducing the risk of undertaking the Hajj pilgrimage for people with asthma. We hope that it will in due course also extend to COPD and other chronic respiratory disorders.

Discussions regarding the health risks of the Hajj are often perceived as restricting pilgrims from fulfilling their religious obligations. However, there should be no conflict between religious and health priorities for an individual. Religious teachings state that the pilgrimage should not be undertaken by those who are not physically or mentally well enough to do so. For those with pre-existing health conditions, proper medical care and prior stabilisation, with monitoring during the pilgrimage, will help to ensure that the pilgrim is able to complete the rituals. The desired outcome of the Hajj is to be cleansed of sins and this can only be achieved when the rituals are completed properly. The health of the pilgrims is of paramount importance to ensure that this outcome is achieved.

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