

## ORAL PRESENTATION OP21

# Musculoskeletal and Respiratory Health Burden Among Malaysian Hajj Pilgrims: Prevalence and Clinical Profiles of Conditions Managed by Physiotherapists During the 2026 (1447H) Pilgrimage

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## ABSTRACT

**Background and Objectives:** Musculoskeletal injuries and respiratory complications are common health concerns during the Hajj pilgrimage due to prolonged physical exertion, overcrowding and exposure to extreme environmental conditions. This study investigated the prevalence and characteristics of musculoskeletal injuries and respiratory complications among Malaysian pilgrims during the 2026 Hajj season (1447H) in Saudi Arabia. **Methods:** A descriptive cross-sectional study was conducted during the 2026 Hajj season. Data were extracted from the online Tabung Haji Hajj Operation System involving pilgrims who attended physiotherapy services for musculoskeletal injuries or respiratory-related complications. **Results:** A total of 2,115 pilgrims were analyzed (41.5% male, 58.5% female), with most aged 60 to 69 years (40.5%). Musculoskeletal injuries were reported in 13.76% of pilgrims, while respiratory complications occurred in 8.24%. The most affected musculoskeletal regions were the lower back (38.3%), knee (29.9%), upper back (28.5%) and ankle/foot (21.8%). Pneumonia was the most common respiratory complication (45.4%), predominantly presenting with cough (58.6%) and dyspnoea (32.5%). Exercise therapy (75.4%) and patient education (74.1%) were the primary interventions, followed by transcutaneous electrical neuromuscular stimulation (55.4%), heat therapy (42.4%) and shockwave therapy (33.1%). Most cases occurred during the pre-Wukuf phase after the first Umrah (76.9%). **Conclusion:** Musculoskeletal injuries and respiratory complications were more prevalent among female and older pilgrims. These findings support targeted preventive strategies and optimized healthcare resource allocation to improve pilgrims' health and successful Hajj completion.

**Keywords:** musculoskeletal injuries; respiratory complications

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