

Pfizer-BioNTech vaccine side effects among healthcare workers in Malta

Sarah Cuschieri

S Cuschieri¹, M Borg², S Agius², J Souness², A Brincat², V Grech²

¹Faculty of Medicine and Surgery, University of Malta, Msida, Malta

²Mater Dei Hospital, Msida, Malta

Contact: sarah.cuschieri@gmail.com

Background:

COVID-19 vaccination is critical to protect healthcare workers (HCWs) from serious infection. The first vaccine approved for emergency use was the Pfizer-BioNtech vaccine. European countries received their first supplies at the end of December 2020. The European country of Malta started its vaccination roll-out immediately targeting HCWs. The aim of this study was to evaluate side effects.

Methods:

An anonymous online Google Forms survey was disseminated to all HCWs via work e-mail addresses (29th March to 9th April 2021). This gathered demographic data and side-effects regarding pain, redness, and swelling at the injection site, fever, chills, fatigue, muscle/joint pains, headache, vomiting, and diarrhea severity following each dose (Likert scale). Descriptive, comparative, and multiple binary regression analyses were performed.

Results:

There were 1480 responses (response rate 30.30%). The commonest side-effect (SE) was pain at the injection site

(88.92% CI95%:87.21-90.42), with the majority reporting it as mild (51%) and moderate (43%). Fatigue reported by 72.97% (CI95%:70.65-75.17), with 42% reporting it as mild and 41% as moderate. Headaches reported by 44.28% (CI95%:41.74-46.80), with 51% claiming to be mild and 34% as moderate. Females had significantly ($p < 0.01$ respectively) more pain (OR:1.90), redness (OR:2.49), swelling at the injection site (OR:1.33), fever (OR:1.74), chills (OR:2.32), fatigue (OR:2.43), muscle (OR:1.54) and joint pains (OR:2.01), headache (OR:2.07) and vomiting (OR:3.43) when adjusted for age and HCW role. Younger individuals (18-34 years) reported higher SE rates than older adults. Localised SE was reported following both vaccine doses, unlike systemic SE that was mostly reported following second doses.

Conclusions:

Females and young adults appeared to be more susceptible to SE among this study's cohort, however the nature of these SE was mostly mild or moderate. This is encouraging and should allay vaccine apprehension/hesitancy.

Key messages:

- Vaccination benefits outweigh the minor side effects experienced. Caring physicians should be notified of the female higher susceptibility to side effects.
- Vaccination should be encouraged among all eligible population.