918 COVID-19: A Detailed Analysis on Fit-Testing for Respiratory Protective Equipment in the UK

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Introduction: There is limited data in the literature regarding the adequacy of generic FFP3 masks and their facial fit to ensure adequate protection. Mask fit-testing is therefore essential to protect healthcare workers.

Method: Using the Freedom of Information Act, 137 acute NHS trusts in the UK were approached on the 26/3/2020 by an independent researcher to provide data on the outcome of fit testing at each site.

Results: 85 Trusts responded to the FOI with 51 trusts providing pertinent data relevant to the FOI request. There was a total of 72 mask types used across 51 trusts. The commonest of which was the FFP3M1863 (used by 47/51 trusts, 92.16%). A positive correlation was found between staff members and number of mask types used ($r = 0.75$, $P = <0.05$).

Overall fit-testing pass rates were provided by 32 trusts. The mean percentage pass rate was 80.74%.

Gender specific failure rates were provided by seven trusts. 4386 males underwent fit-testing in comparison to 16305 females. Across all seven trusts 20.08% of men tested failed the fit-test while only 19.89% of women failed the fit-test.

Conclusions: Our results may be utilised in choosing respirators for fit testing programme in healthcare-workers during the COVID-19 pandemic.