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Suicide following presentation to emergency departments with suicidal ideation: a population-wide study

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Background

Little is known about the association between suicide ideation and completed suicide. As NI has the highest suicide rate in the UK and Ireland it is vital to understand who is most at risk in order to target prevention strategies effectively.

Aim

To explore the risk factors for completed suicide following presentation with suicide ideation.

Methods

The Northern Ireland Registry of Self-Harm and Suicide Ideation contains information on all presentations to all Emergency Departments in NI for self-harm and suicide ideation. Data from 2012-2015 were linked to centralised electronic data relating to primary care, prescribed medication and mortality records. Initial analyses were completed to explore the profile of those who present with suicide ideation, and logistic regression was utilised to examine the likelihood of mortality post presentation. Cox regression was utilised to examine the factors associated with completed suicide following presentation with ideation.

Results

The cohort consisted of 1,483,435 individuals born or resident in NI from 1st January 1970 until 31st December 2015 (maximum age in 2015, 45 years). Between 2012-2015, 4,975 (0.3%) individuals presented with suicide ideation and 583 (0.04%) individuals died by suicide. Ideation is more likely in men compared to women (OR=1.87, 95%CI 1.76,1.98), in those aged 18-24 years, and in more deprived individuals. Of those who presented with ideation, 66 (1.3%) subsequently died by suicide. In fully-adjusted models, those who presented with suicide ideation were 25 times more likely to die

by suicide compared to those who did not (HR=25.0, 95%CI 19.3,32.5). Amongst suicide ideators, male gender (HR=2.67, 95% CI 1.39,5.10) and multiple presentations (HR=1.95, 95% CI 1.09,3.50) were associated with the greatest risk of death by suicide.

Conclusion

These findings could help emergency department staff identify individuals at greatest risk of suicide and could be utilised in the development of targeted intervention strategies.

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