

Rapid Review: Ascertaining the Type of Potentially Life-Threatening Cardiovascular Events and Eventual Cardiovascular Mortality From Antipsychotic Use in Clinical Practice

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Aims. According to the World Health Organization (WHO), there has been a 13% increase in mental health and substance abuse disorders within the last decade. Typical and atypical antipsychotics are the most common treatment mechanisms for mental health-related disorders such as schizophrenia, depression with psychotic symptoms and bipolar disorders. However, antipsychotic usage is associated with more than a 50% increase in CVD such as ischaemic heart disease, resulting in cardiovascular-related mortality.

This review aims to investigate the most common type of cardiovascular event causing mortality due to antipsychotic use.

Methods. A systematic search within PubMed and Medline was conducted on 3 October 2023. Selection criteria were limited to English, full-text studies excluding case reports. The time frame selected was up to 3 October 2023. All studies included adults only. Interventions of focus include typical and atypical antipsychotics licensed in the UK. Outcome measures include cardiovascular mortality/events post-antipsychotic prescription.

Results. 13 studies were included out of 1088 records. Studies originated from 4 nations with the most studies coming from the USA ($n = 7$), UK ($n = 2$), Taiwan ($n = 2$) and Canada ($n = 2$).

The most common antipsychotic reported in the records was risperidone ($n = 11$), followed by haloperidol ($n = 9$), olanzapine ($n = 8$) and quetiapine ($n = 8$).

From data extraction, the most common cardiovascular events leading to death were sudden cardiac death/arrest ($n = 6$), ventricular arrhythmias ($n = 6$), myocardial infarction ($n = 4$), and heart failure ($n = 2$).

Due to data heterogeneity, discrete outcome measures were extracted from each record. This included outcomes measuring: relative risk between various groups ($n = 9$), rate of cardiovascular event per 100 patient year ($n = 3$), and mortality post cardiovascular event ($n = 1$).

Conclusion. From this study, ventricular arrhythmias and sudden cardiac deaths were the most common cardiovascular events secondary to antipsychotic use leading to mortality. Owing to patient safety and benefits, patients with psychotic illness are unable to go untreated. They are consequently very vulnerable to the cardiovascular side effects of prescribed high-dose antipsychotic drugs. Despite current monitoring guidelines worldwide, cardiovascular-associated mortality in patients on antipsychotics is still elevated. This may indicate the potential inadequacy of current measures for these patients while demonstrating the need for more aggressive cardioprotective interventions and monitoring.

Abstracts were reviewed by the RCPsych Academic Faculty rather than by the standard *BJPsych Open* peer review process and should not be quoted as peer-reviewed by *BJPsych Open* in any subsequent publication.

Depression and the Risk Factors Among Elderly Residents in Gyeongsangbuk-Do

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Aims. The purpose of this study is to analyze the prevalence and factors of depression among the elderly population, a significant issue in Korea's aging society. By doing so, we aim to provide basic indicators for improving mental health and quality of life while efficiently managing healthcare costs.

Methods. From February to December 2021, a study was conducted on a population of 19,158 elderly individuals aged 65 and above residing in Gyeongsangbuk-do province. The severity of depression was evaluated using the Korean version of the Patient Health Questionnaire (PHQ)-9, which was adapted for use as a depression screening tool in clinical settings. In addition, demographic information such as place of residence, age, gender, and education level was collected to analyze factors that may influence depression. The data were analyzed using cross-analysis, two independent sample t-tests, one-way ANOVA, multiple regression analysis, and Scheffé's post-hoc analysis.

Results. In the PHQ-9 screening, the average score of the elderly population was 3.65. The results showed that 13,705 individuals (71.5%) were in the normal group with scores ranging from 0 to 4, 3,683 individuals (19.2%) were in the mild group with scores ranging from 5 to 9, 1,575 individuals (8.2%) were in the moderate group with scores ranging from 10 to 19, and 195 individuals (1.0%) were in the severe group with scores of 20 or higher. It was found that place of residence, education level, type of housing, top two difficulties in daily life, subjective economic status, desired services, subjective mental health, past and current history of mental health treatment, and medication for physical illness had statistically significant ($*p < 0.05$) effects on depression.

Conclusion. Various factors were found to have a significant impact on depression among the elderly population in Gyeongsangbuk-do. Proactive prevention and treatment tailored to the population characteristics of the region may be necessary.

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Nature and Prevalence of Long-Term Conditions in People With Intellectual Disability, a Study That Combines the Powers of AI, Big Data and Lived experience

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Aims. Individuals with intellectual disability (ID) exhibit elevated health needs when compared with the general population. There is a higher vulnerability to long-term conditions. A scoping review identified that individuals with ID exhibit a distinct pattern of multiple long-term conditions (MLTC) that is different to the general population. Findings highlight health challenges faced by individuals with ID, emphasising the need for targeted and early interventions to address their unique healthcare needs.

This study utilises a professional advisory panel (PAP) and patient and public involvement (PPI) group to form a consensus on relevant long-term conditions for people with ID. Machine learning algorithms are employed to identify long-term conditions in a large, population-based data repository covering the whole of Wales revealing a comprehensive range and prevalence of long-term conditions in a sample of 13,361 adults with ID.

Methods. A consensus on relevant long-term conditions for people with ID was formulated through iterative review followed by revision by PAP and PPI group. PAP comprised a multidisciplinary team with relevant expertise including General Practitioners, a Consultant Psychiatrist, nurses, pharmacists, and data analysts. The PAP worked in collaboration with a PPI group, comprising three groups of experts by experience: people with ID, family or informal carers of people with ID, and professional carers of people with ID.

This study utilises machine learning algorithms in the Secure Anonymised Information Linkage (SAIL) databank to identify the range and prevalence of long-term conditions in ID. SAIL is an anonymised, population-based data repository, comprising billions of anonymised records across Wales. This study included 13,361 ID adult patients.

Results. Following iterative review and revision by the PAP and PPI group, a consensus of 40 long-term conditions relevant for people with ID was identified. Prevalence rates for each condition were calculated. Ten most prevalent conditions were recorded as mental illness, reflux disorders, epilepsy, chronic airway diseases, hypertension, thyroid disorders, chronic arthritis, chronic kidney disease, diabetes, and anaemia.

Conclusion. Consensus on relevant long-term conditions for the general population developed through previous studies is not relevant for the ID population. This is the first effort at creating a full range of long-term conditions for individuals with ID, utilising a population-based data repository. It is possible to do this in partnership with PAP and PPI groups. Along with prevalence, impact of ageing and gender, and hospitalisation as outcome data, this study describes challenges associated with interpreting data captured by Read Codes and ICD-10 codes.

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Neural Correlates of Disgust Processing in Childhood Maltreatment and Peer Victimization

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Aims. Childhood maltreatment (CM) and peer victimisation (PV) are common sources of early-life interpersonal stress. CM

is associated with atypical fronto-limbic emotion processing and regulation, and increased vulnerability for self-harm/suicide. However, few studies have compared the neurofunctional correlates between caregiver-inflicted versus peer-inflicted mistreatment. We compared the alterations of neurofunctional correlates of facial emotion processing in young people exposed to CM or PV and explored their associations with self-harm.

Methods. fMRI data were collected from 114 age- and gender-matched youths (39 CM, 37 PV and 38 controls) during an emotion discrimination task. Region-of-interest (amygdala, insula) and whole-brain analyses were conducted.

Results. Groups differed significantly during processing of disgust only. Both CM and PV groups had lower activation in right amygdala and bilateral posterior insula than controls, where the left insular underactivation was furthermore related to increased self-harm in maltreated youths. At the whole-brain level, both CM and PV groups also had underactivation compared with controls in a cluster of bilateral limbic-thalamic-striatal, precuneus/posterior cingulate, temporal, fusiform/lingual and cerebellar regions, which was negatively associated with emotional problems in controls, as well as a cluster of somatosensory regions associated with increased self-harm in maltreated youths.

Conclusion. Early-life interpersonal stress from caregivers or peers is associated with common underactivation of limbic-thalamic-striatal, precuneus/posterior cingulate and somatosensory regions during disgust processing. The hypoactivation of key emotion and sensory processing and self-referential brain regions could be a potential suppressive mechanism to cope with the aversive emotion; however, it may also entail increased risk of affective psychopathology in seemingly healthy youths.

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Risk Factors for Burnout Among Doctors in a Tertiary General Hospital

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Aims. To study the risk factors for burnout among doctors in a tertiary general hospital in Singapore. We hypothesized that burnout would be associated with singles, young age, females, foreign born staff who had recently moved to this country unaccompanied by family, and those showing less resilience. We hypothesised perceived support and satisfaction with leisure would mitigate against burnout.

Methods. An anonymised survey was carried out, with questionnaires sent to all staff via email. Survey instruments included the Oldenburg Burnout Inventory, Connor Davidson Resilience Scale, Brief Form of Perceived Social Support Questionnaire, Patient Health Questionnaire-4 items (PHQ-4), Leisure Time Satisfaction Survey and the Demand Control Support Questionnaire (DCSQ). Descriptive statistics for normally-distributed numerical variables were presented as mean (SD or standard deviation), and for categorical variables, median and n (%). One-way ANOVA was performed to determine differences in total burnout scores across