

**Aims:** Studies have shown an elevated risk of psychosis among migrants and ethnic minorities, but there has been little investigation of risks for Irish and Chinese ethnic groups in the UK. The aim of this study is to investigate the risk of first-episode psychosis in White Irish and Chinese ethnic groups compared with the White British population in West Yorkshire.

**Methods:** Data from local census and two Early Intervention in Psychosis services for individuals aged 15–34 with first episode psychosis between 2013–2015 was collected. Risk ratios for combined locations were calculated using Mantel–Haenszel fixed effects models.

**Results:** The White Irish group showed a non-significant but consistent trend of around a 2-fold elevated risk of first episode psychosis (RR 2.27, 95% CI 0.95 to 5.46). The Chinese group did not show a significantly elevated risk (RR 0.4, 95% CI 0.13 to 1.25).

**Conclusion:** Although not statistically significant, the study suggests a consistent trend of elevated psychosis risk in the White Irish group. Further research is needed to validate these findings and determine key contributing factors.

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.

A Comparison of the Mental Health Legislations in the Australian Capital Territory (ACT) and England and Wales (E&W) and the Resulting Impacts on Involuntary Hospitalisation Rates, Average Detention Lengths and Tribunal Reviews

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Aims: With reform planned for the England and Wales (E&W) Mental Health Act (MHA)1983 as amended by the MHA 2007, a comparison of the current E&W Act with the Australian Capital Territory (ACT) MHA 2015 was undertaken, including to examine whether differences were associated with variations in involuntary hospitalisation and Tribunal reviews.

**Methods:** A comparative analysis was conducted examining the E&W and ACT MHAs. Cross-jurisdictional analysis incorporated datasets from the Office for National Statistics (E&W) and ACT Health Services for three key metrics: per capita involuntary admission rates, mean duration of detentions, and frequency of Tribunal reviews, and analysed in relation to both legislative frameworks.

Results: The ACT mental disorder definition is narrower, includes intellectual disability but not personality disorder. Applications for the 3-month renewable ACT Psychiatric Treatment Order (PTO), limited to mental illness, are made to the ACT Civil and Administrative Tribunal (ACAT). It applies in hospital, the community, or correctional facilities. In E&W, the comparable Section 3: Admission for treatment detention period is 6 months. ACAT can authorise compulsory medication and ECT, a role in E&W of a Second Opinion Appointed Doctor (SOAD).

Criminal courts can request ACAT to assess a defendant for fitness to enter a plea and if not guilty by reason of mental impairment. This is the criminal courts' role alone in E&W.

In E&W Crown Courts can make 'hybrid orders', a sentence of imprisonment allowing for treatment in hospital ensuring offenders are placed where their mental health needs can be best met.

Comparing E&W with ACT, the respective approximate populations served were 56 million and 431,000 and the annual involuntary hospitalisation numbers were 48,000–50,000 compared with 300–350 (statistically not significant; 0.087% compared with 0.075% of the population).

The average detention length was longer in E&W (30–45 days compared with 21–35) which has more Forensic units than the ACT.

Annual numbers of Tribunal reviews were 7000–8000 in E&W, while in ACT 200–250, per detained patient significantly more (p<0.0001).

**Conclusion:** The definition of mental disorder differs between the two legislations. The new MHA reforms in E&W will raise threshold for detention and require faster access to Tribunals. The ACT PTO applies to patients not only involuntarily hospitalised, but to those in the community and correctional facilities. This, with shorter detention periods and more frequent Tribunal reviews, may be factors in the shorter detention lengths in hospital in ACT compared with E&W.

Compared with E&W, there is a much greater role for the ACAT Mental Health Tribunal, including in authorising mental health orders, medication and ECT, which likely accounts for the significantly greater use of Tribunals in ACT.

In comparison to E&W, ACAT hearings are briefer and rely more on written than oral evidence. Innovatively, ACAT can be delegated by a Criminal Court to determine medico-legal issues in defendants.

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Comparative Safety Profiles of Anti-Amyloid Therapies in Early Alzheimer's Disease (AD): A Detailed Systematic Review and Meta-Regression Analysis of Amyloid Related Imaging Abnormalities (ARIA) – Incidence and Infusion Reactions for Lecanemab, Donanemab, and Aducanumab.

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**Aims:** Alzheimer's disease continues to be a huge health concern around the globe. Although similar recent developments in antiamyloid therapy are promising, there is concern about some side effects like ARIA. The purpose of this meta-analysis was to systematically review and compare the safety characteristics of three of the most promising anti-amyloid drugs: lecanemab, donanemab and aducanumab, specifically, the frequency of ARIA-E (oedema) and ARIA-H (haemorrhage).

**Methods:** The present systematic review included only high-quality randomized controlled trials, randomized controlled trials with non-parametric data, and meta-analyses. Data was analysed and visualized by using forest plots, funnel plots and bubble plots. The degree of heterogeneity was examined by I<sup>2</sup> of statistics.

**Results:** The antibody lecanemab had the lowest ARIA-E rate at 12.6% and the highest infusion reaction rate at 26.4%. Mild ARIA-E was evident in 24.0% of the participants, whereas mild ARIA-H was detected in 19.7% of the subjects.

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Of the four candidates, aducanumab showed the highest rate in ARIA-E (30.7%) but the lowest rate in infusion reaction (1.2%). The overall ARIA-H rates appeared to be moderate for all drugs (17.3–19.7%).

The odds ratios in the forest plot were above 1 for all the outcomes suggesting increased adverse event risk. There was moderate to high heterogeneity in all the studies examined ( $I^2 = 84.7\%$ ).

Conclusion: In essence, the risks and benefits of each drug are different. The ARIA-E risk associated with lecanemab is lower than with aducanumab; however, infusion reaction rates remain high. There is reason to believe that such an aggressive ARIA-E profile would ultimately restrict the value of aducanumab and lecanemab. However, donanemab does bring a kind of medium between the two. This review emphasizes the importance of individualized interventions in treating Alzheimer's dementia.

Future Directions: More research is thus needed to understand some of the factors that have confounded heterogeneity, and to find ways of managing some of the risks associated with ARIA. The current study indicates the importance of long-term safety data along with head-to-head comparisons regarding clinical decision-making.

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In Elderly Patients With Antipsychotic-Induced Hyperprolactinemia, Could Switching to a Prolactin-Sparing Antipsychotic or Adding a Dopamine Agonist, Rather Than Maintaining the Current Regimen, Normalize the Prolactin Levels Without Triggering Psychotic Relapse or Increasing the Risk of Life-Threatening Adverse Events? A Systematic Review.

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Aims: Elevated prolactin levels due to antipsychotic drugs are prevalent in elderly patients and may cause multiple complications. Hence, the purpose of the present study is to compare the effectiveness of changing existing antipsychotic treatments with prolactin-sparing antipsychotics or adding dopaminergic agents to the existing treatment in patients with clinically insignificant hyperprolactinaemia in later life.

**Methods:** The sample for this systematic review was identified using a broad search strategy in key electronic databases including Pubmed, SIGLE, CINAHL, Web of Science and OVID. To complete the search, only citations that included elderly or geriatric patient populations and hyperprolactinemia associated with antipsychotic medications were used. Normalization of prolactin levels, psychiatric status, and side effects were the main results measured.

**Results:** The review flagged several main studies: The efficacy of antipsychotic aripiprazole use in the treatment of schizophrenia is discussed about its impacts on prolactin levels in individuals of different ages and gender. There was no effect on prolactin plasma concentrations in postmenopausal patients with depression and a small but significant positive impact in schizophrenia patients.

An innovation that supplements the pattern of traditional Chinese medicine together with a low dose of aripiprazole can be useful for treating antipsychotic-induced amenorrhea. Prolonged exposure to prolactin-elevating antipsychotics was found to raise the risk of fractures, a finding that provided insight into other health risks

**Conclusion:** The approach to the management of antipsychotic-induced hyperprolactinemia in older adults is beyond general management. Although studies that counter the aversive effects of antipsychotics with drugs like aripiprazole seem promising, its benefits are somehow relative across populations. Since there may be long-term health risks such as fractures in the future, it is taken fairly seriously and requires vigilance with a concrete individual management plan.

Regarding the limitation of the present study, it is recommended that future research incorporates different antipsychotics, follow-up outcomes longer, and provide strategies to avoid such risk factors among this population.

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# Using Artificial Intelligence to Address Mental Health Inequalities in Low-Income, Urban Youth in North West England: A Digital Health Promotion Intervention

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Aims: This study aims to design and implement a digital health promotion intervention aimed at reducing mental health inequalities among low-income, urban youth in North West England. The intervention is grounded in the hypothesis that a combined approach – incorporating peer mentorship, digital technology, and community-driven initiatives – will enhance mental health awareness, reduce stigma, and increase engagement with mental health services in this vulnerable population.

Methods: The intervention consists of three key components: (1) Training 50 peer mentors to deliver mental health workshops in local schools, (2) Developing a culturally relevant digital mental health app that offers self-help tools and anonymous counselling, and (3) Hosting five community-based mental health awareness events to engage families and local leaders. The intervention is evaluated using a mixed-methods approach. A sample of 500 students will complete pre- and post-intervention surveys to assess changes in mental health literacy, stigma, and help-seeking behaviours. Focus groups will capture qualitative insights into participant experiences, while app analytics will track usage patterns, such as downloads, active users, and interaction with features. School attendance records will also be reviewed to assess the potential impact on student well-being. The evaluation will provide both quantitative and qualitative data to determine the intervention's effectiveness and acceptability.

**Results:** The intervention is expected to significantly increase mental health awareness and literacy, with an anticipated 20% reduction in self-reported symptoms of anxiety and depression. The app is projected to achieve 1,000 downloads and 300 active users within the first 18 months of implementation. The peer mentorship programme