

## Judicious Prescribing of Psychotropic Medication for Children and Adolescents

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Mental health disorders occur in 10-20% of youth and by age 18, account for 75% of all adult mental illness<sup>1</sup>. The Growing up in Ireland study reported that at age 17, 10% self-reported having been given a diagnosis of anxiety or depression and 4% were in current treatment<sup>2</sup>. They often run a chronic course with significant personal, family, and societal costs, with mental illness now being recognised as a leading cause of global burden of disease and years lived with a disability<sup>3</sup>. Early and appropriate multi-modal intervention is therefore essential to minimise associated adverse effects.

The efficacy, acceptability, and tolerability of psychotropic medication in youth have been robustly demonstrated. A recent review of 48 different psychotropic medications, with 52 different mental health disorders concluded that there was strong evidence from controlled trials of medication efficacy in youth for most psychiatric disorders<sup>4</sup>. Efficacy needs to be carefully balanced with an acceptable side-effect profile, and the subject of a similar analysis of 80 medications<sup>5</sup>. Together these papers act as useful reference guides for clinicians.

Despite a plethora of controlled and methodologically robust studies attesting to the safety and efficacy of psychotropic medication, hesitancy regarding medication use remains. This is in part driven by stigma, myths regarding diagnostic validity for various childhood mental illnesses, concerns regarding the impact of medication on a developing brain, unlicensed or off-label use and general societal concerns regarding pharmaceutical influence and over-medicalization with the pursuit of a culture of 'a pill for every ill'. These legitimate concerns have been augmented by the recent HSE Maskey review of South Kerry CAMHS which raised concerns regarding an over reliance on medication, polypharmacy, inconsistent and inadequate monitoring along with general systems failure and lack of clinical and managerial governance<sup>6</sup>. This led to calls for a national CAMHS prescribing audit based on fears of excessive and inappropriate medication use.

However, longitudinal analyses of public pharmacy claims from the Primary Care Reimbursement Service (PCRS) do not support this assertion<sup>7</sup>. PCRS summary reports state that in 2020, only 0.2% of children under 16 were dispensed medications under the Long Term Illness scheme, with no significant increase from the prior year<sup>7</sup>. Whilst rates of prescribing among 'medical card' holders rose for youth under 25 with ADHD between 2005 (5.61 per 1000 eligible GMS population) and 2015 (8.36 per 1000), rates remain significantly below ADHD prevalence rates and below comparator international rates<sup>8</sup>. GMC prescribing rates for anti-psychotic medication remained stable (4/1000 in under 16s)<sup>9</sup> whilst rates for anti-depressants<sup>10</sup> and benzodiazepines<sup>11</sup> decreased. Consistent with clinical guidelines and research, methylphenidate and fluoxetine are the most commonly prescribed within their classes. Detailed recommendations for improvement of prescribing practices were proposed in the Maskey report<sup>6</sup>. Given the breadth and significance of the issues identified with medication use, the addition of a dedicated pharmacy resource appears justified. A CAMHS pharmacist would be ideally placed to support local prescribing quality audits, develop medication-related prescribing protocols and subsequent monitoring, chair a Drugs and Therapeutics committee, provide oversight to controlled drugs management and continuity of supply, provide medication reviews for potentially inappropriate polypharmacy, and provide local education of staff and families. Within the General Practice setting in Ireland, evidence is emerging that a pharmacist joining the practice team has the potential to improve prescribing quality and was well accepted by staff and could be extended to allow for advanced nurse and pharmacist prescribing<sup>12</sup>.

The delivery of evidenced based treatment to youth with mental illness must be a public health priority. Effective management of children with mental illness involves a multi-modal approach, delivered by trained, and in the case of juniors, supervised clinicians. Access to non-medication management is essential where such evidence exists. Suboptimal prescribing practices are unacceptable, as is a failure to inform families and prescribe in the presence of good evidence for efficacy, both depriving the patient of effective, safe, and optimum outcomes. Safe prescribing not only requires an evidence base of efficacy, but also assumes careful initial diagnostic assessments have been conducted, treatment is monitored and adapted based on outcomes, and a therapeutic alliance has been established based on a collaborative and informed process.

The HSE is not only responsible for ensuring patients have access to specialist services, led by senior clinicians with adequate pharmacology competence, who can supervise trainees, but also access to other non-pharmacological therapies to ensure optimum care and choice. Any review of CAMHS should examine access and proficiencies in all components of care, including access to supporting services and adequacy of resourcing. Over reliance of one modality of treatment may be a consequence of unavailability of others. Early identification of such gaps requires adequate senior clinical oversight, regular service evaluation, robust governance, and effective responsive managerial systems.

Regrettably, these were some of the deficits identified in the Maskey report, and the many alerts made by team members were not met with targeted interventions, and for the most part left unresolved<sup>6</sup>.

CAMHS Standard Operating Procedure 2015 and the subsequent CAMHS Operational Guideline 2019 set out how a CAMHS should function<sup>13</sup>. Although there remain many areas not covered in these documents, especially co-ordinated out-of-hours emergency mental health services, the COG offers a useful framework to consider consistency in the service delivery and quality. The current spotlight is both unwelcome in terms of genesis, and costly in terms of taxpayer's purse and family distress. However, it may offer staff and those attending CAMHS hope, in that now at last, services may be designed and funded to allow the very important role of optimising wellbeing for our most vulnerable youth. Maybe now, the HSE can live up to their promise that the 'HSE mental health services are committed to the continued development of quality mental health services for children and adolescents'<sup>13</sup>.

#### **Declaration of Conflicts of Interest:**

The authors FMcN, KM, BG and JH have no conflicts of interest to declare.

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#### **References:**

1. Wang, P.S., et al., Failure and delay in initial treatment contact after first onset of mental disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry*, 2005. 62(6): p. 603-13.
2. <https://www.esri.ie/news/growing-up-in-ireland-the-lives-of-17-18-year-olds>
3. Faraone, S.V., et al., The World Federation of ADHD International Consensus Statement: 208 Evidence-based conclusions about the disorder. *Neurosci Biobehav Rev*, 2021. 128: p. 789-818.
4. Correll, C.U., et al., Efficacy and acceptability of pharmacological, psychosocial, and brain stimulation interventions in children and adolescents with mental disorders: an umbrella review. *World Psychiatry*, 2021. 20(2): p. 244-275.
5. Solmi, M., et al., Safety of 80 antidepressants, antipsychotics, anti-attention-deficit/hyperactivity medications and mood stabilizers in children and adolescents with psychiatric disorders: a large scale systematic meta-review of 78 adverse effects. *World Psychiatry*, 2020. 19(2): p. 214-232.
6. <https://www.hse.ie/eng/services/news/newsfeatures/south-kerry-camhs-review/report-on-the-look-back-review-into-camhs-area-a.pdf>
7. Executive, H.S. Primary Care Reimbursement Service Statistical Analysis of Claims and Payments 2020 2020 [cited 2022 3rd March]; Available from: <https://www.hse.ie/staff/pcrs/pcrs-publications>.

8. Mac Avin, M., M. Teeling, and K.E. Bennett, Trends in attention-deficit and hyperactivity disorder (ADHD) medications among children and young adults in Ireland: a repeated cross-sectional study from 2005 to 2015. *BMJ Open*, 2020. 10(4): p. e035716.
9. Conlan, K., et al., Antipsychotic prescribing in GMS paediatric and young adult population in Ireland 2005-2015: repeated cross-sectional study. *Ir J Psychol Med*, 2021: p. 1-10.
10. O'Sullivan, K., et al., Antidepressant prescribing in Irish children: secular trends and international comparison in the context of a safety warning. *BMC Pediatr*, 2015. 15: p. 119.
11. O'Sullivan, K., et al., Benzodiazepine prescribing in children under 15 years of age receiving free medical care on the General Medical Services scheme in Ireland. *BMJ Open*, 2015. 5(6): p. e007070.
12. James, O., et al., Pharmacists in general practice: a qualitative process evaluation of the General Practice Pharmacist (GPP) study. *Fam Pract*, 2020. 37(5): p. 711-718.
13. [camhs-operational-guideline-2019.pdf \(hse.ie\) accessed 22 April 2022](#)