**Author reply**

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Ponnou and colleagues and Storebø and colleagues expressed concerns around our plea for methylphenidate to be included in the WHO Model List of Essential Medicines (EML).

Ponnou and colleagues claim that methylphenidate is an amphetamine analogue with addictive potential. Methylphenidate, and indeed dexamfetamine, have a very different pharmacology to stimulant drugs of misuse such as methamphetamine and cocaine. These differences, primarily pharmacokinetic in nature, reduce drug liking effects, misuse potential and the development of addiction. Indeed, substantial evidence suggests that, when used therapeutically, stimulant treatments for ADHD do not increase, and may even protect against, the likelihood of later substance use problems1.

Both Ponnou and colleagues and Storebø and colleagues claim that there is a low level of certainty about evidence on the efficacy of methylphenidate for reducing symptoms of ADHD. That statement is based on Storebø and colleagues’ meta-analyses of methylphenidate which used an idiosyncratic application of the Cochrane risk of bias tool.2 We believe that data from RCTs are clear: methylphediate is not only efficacious, it is among the most efficacious drugs in all of medicine.1

Both Ponnou and colleagues and Storebø and colleagues express concerns about the long-term effectiveness and safety of methylphenidate. Their claim that there is no strong evidence for the long-term effectiveness of methyphenidate ignores data from relapse prevention studies which demonstrate the persistence of clinically meaningful benefits with continued long-term treatment.3 Findings from many naturalistic studies from multiple medical registries around the world also document longer-term effects of methylphenidate across key real-world outcomes, including suicidal risk, car accidents, and unintentional injuries.[Ref] A recent observational study5 found that longer cumulative use of methylphenidate for up to 14 years was associated with a statistically significant increased risk of hypertension and arterial disease but no increased risk for other serious cardiovascular conditions, including heart failure. While these findings reinforce the recommendations found in all evidence-based guidelines to monitor cardiovascular parameters when prescribing methylphenidate, they are not an argument to withhold such an effective treatment from those who are going to benefit.

Safety and efficacy data have been reviewed in great depth by regulators (e.g., the Food and Drug Administration- FDA) and the European Medicines Agency - EMA) the developers of evidence national based guidelines (e.g., National Institute for Health and Care Excellence- NICE, and American Academy of Pediatrics - AAP) and government agencies who have endorsed these guidelines (e.g, Australian NHMRC). These groups all conclude that methylphenidate is safe and effective and should be considered as a first line pharmacological treatment for ADHD. Importantly, while the WHO has not yet agreed to include methylphenidate on the EML, they do support the use of methylphenidate as a treatment for ADHD, including in non-specialist settings within low-income and middle-income Countries. The 2023 WHO Mental Health Gap Action Programme Guideline For Mental, Neurological and Substance Use Disorders (mhGAP) makes a clear recommendation that methylphenidate should be considered for children 6 years old and above with ADHD, noting specifically that “methylphenidate treatment shows substantial effects on symptom reduction” (https://www.who.int/publications/i/item/9789240084278) [A: we would make this a reference so please move to the list].

One crucial perspective missing from the Correspondence of both correspondents, is the voice of people with lived experience. Listening towhat those with lived experience are saying, is essential for evaluating evidence and determining policy. When preparing our original correspondence for *The Lancet Psychiatry*, we consulted with seven large lived experience associations from across the world[A: add ref as it’s important we have the link to the appendix listing those associations]. They were unanimous in recognizing the crucial role methylphenidate has had in improving the lives of people with ADHD and supporting its inclusion in the EML. As clinicians and researchers we cannot ignore their message.

We hope that members of the WHO EML committee evaluating methylphenidate will, in the future, take into account the evidence as well as the views of those with lived experience of ADHD.

**Conflicts of interest:**

Cortese: Honoraria from: Association for Child and Adolescent Mental Health (ACAMH), British Association of Psychopharmacology (BAP), Canadian ADHD Resource Alliance (CADDRRA), and Medice.

Coghill: grants from National Health and Medical Research Council and Medical Research and Futures Fund; royalties from Oxford University Press and Cambridge University Press; honoraria from Takeda, Medice, Servier and Novartis; Support for attending meetings and/or travel from European College of Neuropsychopharmacology (ECNP) and South African Society of Psychiatry (SASOP); Director Australian ADHD Professionals Association and European Network for Hyperkinetic Disorders both unpaid.

Mattingly: consulting fees, honoraria and Participation data safety monitoring board: Corium, Supernus, Ironshore, Tris, Akilly, Lumos Lab, Revibe; stock: Revibe

Rohde: grants from National Council for Scientific and Technological Development (CNPq) and United States National Institutes of Health grant R01MH120482; royalties from ARTMED, Oxford Press; Consulting fees: Adium, Apsen, Medice, Novartis/Sandoz, and Shire/Takeda; Honoraria: Abdi Ibrahim, Abbott, Aché, Adium, Apsen, Bial, Medice, Novartis/Sandoz, Pfizer/Upjohn/Viatris, and Shire/Takeda; support for attending meeting/; Stavros Niarchos Foundation; Participation data safety monitoring board: Adium, Apsen, Medice, Novartis/Sandoz, and Shire/Takeda; Pesident: International Association of Child and Adolescent Psychiatry and Allied Disciplines, the Hong Kong RGC, and the Hong Kong Health and Medical Research Fund in Hong Kong, National

Wong: grants: Amgen, Janssen, GSK, Novartis, Pfizer, Bayer and Bristol-Myers Squibb and Takeda , Institute for Health Research in England, European Commission, National Health and Medical Research Council in Australia, The European Union's Seventh Framework Programme for research, technological development ; consulting fee: IQVIA and WHO; payment for expert testimony/; appeal Court in Hong Kong; Leadership: Member of Pharmacy and Poisons Board; Member of the Expert Committee on Clinical Events Assessment Following COVID-19 Immunization; Member of the Advisory Panel on COVID-19 Vaccines of the Hong Kong Government; other: non-executive director of Jacobson Medical in Hong Kong

Faraone: grants: Otsuka, Shire/Takeda, Supernus, Arbor; royalties: Elsevier, Guilford Press, Oxford University; consulting fee: Arbor; Aardvark, Aardwolf, AIMH, Atentiv, Aveksham Axsome, Genomind, Ironshore, Corium, Kanjo, Johnson & Johnson/Kenvue, KemPharm/Corium, Sky Theraperutics, Medice, Noven, Rhodes, Supernus, Tris, Vallon; Payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events: Takeda, Supernus, Sabndoz, Otsuka, tris; Support for attending meetings and/or travel; Ironshore, Supernus; Patents planned, issued or pending: US Patent (US20130217707 A1); Stock or stock options: Aardvark, Aardwolf, Akili, Ironshore, Sky Therapeutics, Genomind

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