

# Normalisation of school behaviour with methylphenidate

## ● Increase in ADHD diagnosis in the youngest members of same school classes.

In children, the diagnosis of attention deficit disorder, with or without hyperactivity, is made on the basis of several non-specific symptoms, including difficulty concentrating in school, motor agitation, and impulsivity; the boundaries are blurred. In 2016, *methylphenidate*, an amphetamine-like psychostimulant, was being used in these situations in France in about 60 000 children and adolescents aged less than 20 years, despite having at best modest symptomatic efficacy, while its cardiovascular and neuropsychological adverse effects are sometimes serious. It should only be offered as a last resort, when non-drug interventions have failed (1).

In spite of these reservations, the diagnosis of attention deficit hyperactivity disorder (ADHD) in school-age children, and their treatment with *methylphenidate*, has sharply increased in many countries (2-4).

## Overdiagnosis and overtreatment in the youngest members of the same school class.

In one Canadian province, a study of the diagnosis of ADHD and its treatment with psychostimulant drugs was carried out between 1997 and 2008 in about 930 000 children aged 6 to 12 years (3). It showed that, at school, the youngest children in a given grade were more likely to be taking a psychostimulant than older children: a 1.4-fold greater likelihood for boys and 1.8-fold for girls (3). The authors considered that these differences demonstrated overdiagnosis and overtreatment of the youngest children, and hence those more likely to have lower levels of attention and more disruptive behaviour at school. Parents, teachers and doctors all share responsibility for this excessive use of drug treatment (3,5).

Other studies in different countries have provided similar results: the number of children treated with psychostimulants was 1.6-fold higher in the youngest children in the same school year in a study of 380 000 children in Taiwan, 1.5-fold higher in a study of 500 000 children in Norway, and 1.3-fold higher in a study of 400 000 children in the United States. (4,6).

## Communication of the harms linked to overdiagnosis and treatment must continue.

In 2018, the authors of the Canadian study noted that psychostimulant use had continued to increase between 2000 and 2017 in children aged 6 to 12 years (5).

In France, resorting to *methylphenidate* seems to be less frequent than in other countries, but the number of children aged 6 to 11 years taking this

drug nevertheless increased by 17% between 2012 and 2014 (7).

The excesses observed in other countries should be widely publicised, in order to alert healthcare professionals, parents and teachers to the dangers of runaway use of psychotropic drugs for the purpose of keeping children's behaviour within the norm.

©Prescrire

► Translated from *Rev Prescrire* February 2019  
Volume 39 N° 424 • Page 130

### Selected references from Prescrire's literature search

- 1- Prescrire Rédaction "Méthylphénidate: banalisé malgré les dangers" *Rev Prescrire* 2017; **37** (406): 616.
- 2- Raman SR et al. "Trends in attention-deficit hyperactivity disorder medication use : a retrospective observational study using population-based databases" *Lancet* 2018: 12 pages.
- 3- Morrow RL "Influence of relative age on diagnosis and treatment of attention-deficit/hyperactivity disorder in children" *CMAJ* 2012; **184** (7): 755-762.
- 4- Whitely M et al. "Attention deficit hyperactivity disorder late birthdate effect common in both high and low prescribing international jurisdictions: systematic review" *J Child Psychol Psychiatry* 2018: 12 pages.
- 5- Therapeutics Initiative "Stimulants for ADHD in children: Revisited" *Therapeutics letter* 2018; (110): 2 pages.
- 6- Layton T et al. "Attention deficit-hyperactivity disorder and month of school enrollment" *N Engl J Med* 2018; **379**: 2122-2130.
- 7- ANSM "Méthylphénidate: données d'utilisation et de sécurité d'emploi en France. Rapport" April 2017: 33 pages.

## Advancing healthcare policy



Via its policy advocacy, Prescrire acts as a force for change in health policies, first and foremost in the interest of patients. See the "Advancing healthcare policy" section of our website for a complete recap of Prescrire's policy advocacy actions, including this recent item:

### • "Last chance to safeguard citizens' protections by removing "Innovation Principle" from Horizon Europe (March 2019)":

A joint declaration, signed by Prescrire, calls for the immediate and complete removal of the "innovation principle" from Horizon Europe, the next EU Framework Programme for Research and Innovation, because it threatens the Precautionary Principle and is nothing more than an attempt to keep regulation of dangerous products at bay.

See online at [english.prescrire.org](https://english.prescrire.org) > Topics  
> Advancing healthcare policy