excessive daytime sleepiness in patients with traumatic brain injury (TBI).

The overall quality of evidence for armodafinil for the treatment of hypersomnia due to TBI was moderate. The quality of evidence was downgraded because of imprecision. Across all studies reporting the use of armodafinil (irrespective of the indication), commonly reported adverse events included headache, upper respiratory tract infections, dizziness, nausea, sinusitis, and somnolence.

Based on their clinical expertise, the TF concluded that the balance between the desirable and undesirable effects is likely in favor of armodafinil for the treatment of hypersomnia secondary to TBI. The balance of risks and harms is likely different for pregnant and breastfeeding women. While the costs are likely to be higher, the majority of patients would probably use armodafinil compared to no treatment for their narcolepsy.

Recommendation 18: We suggest that clinicians use modafinil (vs no treatment) for the treatment of hypersomnia secondary to traumatic brain injury in adults. (CONDITIONAL)

Remark: This medication is an FDA Schedule IV federally controlled substance because of its potential for abuse or dependency. Based on animal data, modafinil may cause fetal harm. Human data are insufficient to determine risk. A 2018 annual report of the ongoing armodafinil/modafinil pregnancy registry in the United States showed a higher rate of major congenital anomalies, and other adverse reactions, in children exposed to the drug in utero.[6] *Modafinil may reduce the effectiveness of oral contraception.*

The TF assessed whether modafinil was effective treatment of posttraumatic hypersomnia in adults based on improvements in excessive daytime sleepiness, quality of life, and work/school performance/attendance. One RCT that examined the effect of modafinil on patients with hypersomnia secondary to traumatic brain injury (TBI) was identified. The study demonstrated a clinically significant improvement in excessive daytime sleepiness.

The TF concluded that the overall quality of data on modafinil for patients with TBI was moderate. The level of evidence was downgraded for imprecision. Across all studies reporting the use of modafinil, commonly reported adverse events included insomnia, nausea, diarrhea, headache, and dry mouth.

Based on their clinical expertise, the TF determined that the balance between the desirable and undesirable effects in patients with hypersomnia secondary to TBI is in favor of modafinil. The balance of risks and harms is likely different for pregnant and breastfeeding women. While the costs are likely to vary, the majority of patients would most likely use modafinil compared to no treatment for their hypersomnia.

Genetic disorders associated with primary central nervous system somnolence

Recommendations for specific interventions for the treatment of genetic disorders associated with primary central nervous system somnolence in adults are presented below. There was insufficient and inconclusive evidence to make recommendations for methylphenidate and selegiline. A summary of the evidence for each intervention can be found in the accompanying systematic review.[2]

Recommendation 19: We suggest that clinicians use modafinil (vs no treatment) for the treatment of hypersomnia secondary to myotonic dystrophy in adults. (CONDITIONAL)

Remark: This medication is an FDA Schedule IV federally controlled substance because of its potential for abuse or dependency. Based on animal data, modafinil may cause fetal harm. Human data are insufficient to determine risk. A 2018 annual report of the ongoing armodafinil/modafinil pregnancy registry in the United States showed a higher rate of major congenital anomalies, and other adverse reactions, in children exposed to the drug in utero.[6] *Modafinil may reduce the effectiveness of oral contraception.*

The TF assessed whether modafinil was effective treatment of hypersomnia secondary to myotonic dystrophy in adults based on improvements in excessive daytime sleepiness, quality of life, and work/school performance/attendance. The TF identified 2 RCTs that examined the effect of modafinil on patients with myotonic dystrophy. These studies demonstrated clinically significant improvements in excessive daytime sleepiness.

The TF concluded that the overall quality of data on modafinil for patients with myotonic dystrophy was moderate. The level of evidence in each of the RCTs was downgraded for imprecision. Across all studies reporting the use of modafinil (irrespective of the indication), commonly reported adverse events included insomnia, nausea, diarrhea, headache, and dry mouth.

Based on their clinical expertise, the TF determined that the balance between the desirable and undesirable effects in patients with hypersomnia secondary to myotonic dystrophy is in favor of modafinil. The balance of risks and harms is likely different for pregnant and breastfeeding women. While the costs are likely to vary, the majority of patients would most likely use modafinil compared to no treatment for their hypersomnia.

Hypersomnia secondary to brain tumors, infections, or other central nervous system lesions

Recommendation 20: We suggest that clinicians use modafinil (vs no treatment) for the treatment of hypersomnia secondary to multiple sclerosis in adults. (CONDITIONAL)

Remark: This medication is an FDA Schedule IV federally controlled substance because of its potential for abuse or dependency. Based on animal data, modafinil may cause fetal harm. Human data are insufficient to determine risk. A 2018 annual report of the ongoing armodafinil/modafinil pregnancy registry in the United States showed a higher rate of major congenital anomalies, and other adverse reactions, in children exposed to the drug in utero.[6] *Modafinil may reduce the effectiveness of oral contraception.*

The TF assessed whether modafinil was effective treatment of hypersomnia secondary to multiple sclerosis in adults based on improvement in excessive daytime sleepiness. The TF