WHO/MCA Department inputs and comments on selection and use of essential medicines for discussion at the 25th expert committee, 5-9 May 2025

Dear EML Secretariat,

Thanks for the request to provide inputs and comments on selection and use of essential medicines. The WHO/MCA department has reviewed the relevant applications submitted and proposed changes on EMLc, specifically, F.2 Phytomenadione, new formulation – mixed micelle solution, I.8 Prednisolone for Adrenal insufficiency, C.2 Medicines for haemoglobinopathies, and A.24 Risdiplam for Spinal muscular atrophy.

Our input and recommendations are as follows:

1. Regarding the application to include Phytomenadione (Vitamin K1) mixed micelle (MM) solution on the WHO EMLc, WHO/MCA recommends the inclusion of Phytomenadione MM solution EMLc for prevention and treatment haemorrhagic disease of the newborn. (***See details attached***).

2. Regarding the application to include, WHO/MCA recommends inclusion of prednisolone on adult EML and not on the EMLc due to its long-acting nature and the potential for adverse impacts on growth. This approach ensures that the medication is available for those who can benefit from it while minimizing the risks for younger patients. (***See details attached***)

3. Changes to listings 10.3.1 Medicines for sickle-cell disease, WHO/MCA recommends that hydroxyurea (hydroxycarbamide) is included in the EMLc as "**10.3 Medicine for haemoglobinopathies**", rather than "other," and not as a “complementary list” but as a main essential treatment. Hydroxyurea (hydroxycarbamide) is currently recommended by WHO as a disease modifying agent for treatment of all children over 9 months of age with sickle cell disease regardless of clinical severity.

4. Regarding the application to include Risdiplam for treatment of Spinal muscular atrophy (SMA)on the WHO EMLc, although WHO/MCA does not have the specific expertise in this area, Risdiplam being the only oral disease-modifying therapy available today for the treatment of SMA, and may be the best choice for the LMICs. Therefore, WHO/MCA proposes that it be included on the EMLc.

For any further clarifications, please feel free to contact Dr Wilson Were, at werew@who.int.

Best regards,

Dr Anshu Banerjee
Director, WHO Department of Maternal, Newborn, Child and Adolescent Health and Ageing

Application to include Prednisolone for Adrenal insufficiency on the WHO Model List of Essential Medicines

Dear EML Secretariat,

Regarding the application to include Prednisolone 1 mg tablets on the WHO Essential Medicines List for Children (WHO EMLc) for the treatment of adrenocortical insufficiency, we have reviewed the submission and the evidence provided.

Adrenal insufficiency in children is a condition where the adrenal glands do not produce enough of the hormones cortisol and, in some cases, aldosterone. This can be due to congenital conditions like congenital adrenal hyperplasia (CAH), autoimmune diseases such as Addison's disease, infections, or long-term steroid therapy. Symptoms in children include slow weight gain, fatigue, generalized weakness, low blood pressure, and salt cravings. During an illness or stress, children with adrenal insufficiency are at risk of adrenal crisis, which can lead to severe symptoms like vomiting, low blood pressure, low blood sugar, and shock. Effective management involves hormone replacement therapy, primarily with hydrocortisone, to ensure normal growth and development and to manage stress effectively.

The mainstay of treatment is hydrocortisone, which is preferred due to its short-acting nature, predictable metabolism, and lower risk of growth suppression. Hydrocortisone is typically administered in multiple daily doses to mimic the body's natural cortisol rhythm, ensuring better control over growth and development. During periods of illness, injury, or surgery, children with adrenal insufficiency require increased doses of hydrocortisone, known as "stress dosing", to prevent an adrenal crisis.

There is insufficient evidence for the use of prednisolone for treating adrenal insufficiency in children under 16 years of age. Prednisolone is a long-acting glucocorticoid that requires hepatic conversion and has variable bioavailability in young children. Additionally, it is associated with side effects such as obesity, hyperglycaemia, hypertension, osteoporosis, and in some cases, it might even worsen the condition. While prednisolone may be considered an alternative for older children over 16 years of age and adults, it is unsuitable for inclusion in the EMLc for younger children.

The evidence supports the use of hydrocortisone as the primary treatment for adrenal insufficiency in children under 16, and we recommend maintaining this standard to ensure the best outcomes for this vulnerable population.

Conclusion

In view of the above, WHO/MCA recommends inclusion of prednisolone on adult EML and not on the EMLc due to its long-acting nature and the potential for adverse impacts on growth. This approach ensures that the medication is available for those who can benefit from it while minimizing the risks for younger patients.

Dr Anshu Banerjee
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