



Intervention Plan

PGTM Clinical Intervention Model (CIM)

Evaluation of micafungin (Mycamine™) for the treatment and prevention of *Candida* infections in pediatric patients

Title of document: Intervention plan: PGTM Clinical Intervention Model (CIM) – Evaluation of micafungin (Mycamine™) for the treatment and prevention of *Candida* infections in pediatric patients

Background: The scientific literature clearly defines the role of echinocandins in the therapeutic arsenal for the prevention and treatment of *Candida* infections. Several expert panels and guidelines recommend the use of these antifungals. There is no evidence that one echinocandin is superior to another, either in terms of efficacy or safety.

Micafungin is the most studied echinocandin in pediatrics. One clinical study found that the treatment success rate for a *Candida* infection with micafungin was similar in children and adults. Another study involving children found comparable efficacy for amphotericin B and micafungin. The most complete study describing the pharmacokinetics of micafungin in children determined the pediatric doses needed to obtain the same exposure as in adults for the treatment and prevention of *Candida* infections. The pharmacokinetics of micafungin in newborns, including premature infants, has been studied as well.

Considering:

- ◆ That the scientific literature clearly defines the role of echinocandins in the therapeutic arsenal for the prevention and treatment of *Candida* infections. Several expert panels and guidelines recommend echinocandins;
- ◆ That there is no evidence that one echinocandin is superior to another, either in terms of efficacy or safety; and
- ◆ That the pharmacokinetics of micafungin has been studied more than those of caspofungin for the pediatric population, including premature newborns;

The PGTM's scientific opinion

The PGTM recommends giving preference to micafungin among the echinocandins for the treatment *and prophylaxis** of *Candida* infections in pediatric patients, including newborns.

Objective: To change the echinocandin in the formulary to micafungin in the university teaching hospitals (UTHs) that treat children.

Intervention measures: Each institution is to determine which interventions apply to its situation and to make one or more of them priorities.

Intervention plan for the PGTM's micafungin CIM:

1. Present the evaluation to the Pharmacy and Therapeutics Committee and the Antimicrobial Management Subcommittee, as well as to other committees concerned, if relevant.
2. Present the evaluation to the clinical practitioners concerned, specifically, infectious disease specialists, microbiologists, neonatologists and hematologists/oncologists.

* « and prophylaxis » added October 15th, 2020 (was omitted in the initial recommendation)





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3. Based on the evaluation, draft the conditions of use for micafungin.
4. Remove caspofungin from the formulary.
5. Make the changes on the standing order sheets as required.
6. Evaluate the use of micafungin in newborns, with a focus on the indications, the doses used and its role in treatment.

Le pGTm est une initiative des cinq centres hospitaliers universitaires du Québec
