Medications for breastfeeding and lactating patients: a decision tree

This decision tree provides guidelines to consider when lactating and breastfeeding patients need medications. In this case, the decision tree applies to any patients who are lactating (i.e., producing milk) and breastfeeding a baby or child of any age or who are expressing or pumping milk to be used for feeding or to be stored for future use. For the purposes of the decision tree, *medication* is an all inclusive word to describe any drugs used for treatment and all diagnostic agents, hormones, vaccines, herbs, over-the-counter products, chemotherapeutic agents, or other substances. *Prescribe* encompasses the use of medications in the course of patient care; whether as a written prescription, a recommendation, or an agent required for diagnosis and treatment.

Breastfeeding rates increased dramatically in Canada, from lows in 1963 (38%) and 1973 (36%) to current national initiation rates which average 89%. <sup>1,2</sup> About 22% of breastfed children continue nursing after nine months of age. <sup>3</sup> Canada's *Infant Feeding Joint Working Group* states, "Breastfeeding - exclusively for the first six months, and continued for up to two years or longer with appropriate complementary feeding - is important for the nutrition, immunologic protection, growth, and development of infants and toddlers" <sup>4</sup> Breastfeeding also has benefits for mothers, and the benefits for both mother and child are dose related (i.e., increased benefits with increased breastfeeding). <sup>5-7</sup> With higher breastfeeding initiation and duration rates and the recommendation to continue breastfeeding for two years or longer, lactating and breastfeeding patients are increasingly seen in many areas of health care including emergency rooms, radiology, surgery, and other non-obstetrical settings.

This decision tree was designed for health care providers; especially those who do not specialize in breastfeeding and lactation but who provide care for breastfeeding and lactating

patients. We recognize that babies and children who receive breast milk need to be kept healthy and safe which means they should not be exposed to contraindicated medications through breast milk. At the same time, continued breastfeeding contributes child health and safety, and clinicians should consider the risk of not breastfeeding when prescribing medications.<sup>8</sup>

The decision tree does not deal with specific medications; rather, it can be used with any medication. The first part of decision tree promotes breastfeeding by considering it from the start. This section is about safety and first asks if the patient is breastfeeding, then it questions if the medication is required at this time. While under normal circumstances a medication might be used, it might be delayed for a breastfeeding patient. A delay might promote breastfeeding by ensuring patients do not wean before they are ready.

More often, a medication cannot be delayed; especially if a patient intends to breastfeed for an extended period. The second part of the decision tree supports breastfeeding by choosing a medication compatible with lactation and breastfeeding. Clinicians must consider several factors such as the stage of lactation and age of the nursling (i.e., child receiving breast milk) and oral bioavailability from nursling's gut. Since the nursling is not blood to blood with the patient, as in pregnancy, medications could be destroyed in the nursling's gut. One should consider the age of the nursling and if the nursling could take the medication. For example, the first week post birth is a period when lactation is getting established and medication can more easily pass from the patient's blood to the milk. A medication cautioned or contraindicated for a baby under six months old might be used to treat a one or two year old.

The third and final section protects breastfeeding in the event a medication is contraindicated while breastfeeding. To guide prescribing, clinicians should also determine the half life of the medication and whether or not the medication is diffused from breast milk.<sup>9</sup>

There is a difference between a medication that will be reabsorbed from the milk into a patient's bloodstream and one that will not. In the first instance, the medication can move as easily from bloodstream to milk and back out of the milk to the bloodstream as the patient's plasma levels of the medication fall. The half life will determine when the contraindicated medication has left the bloodstream and thereby the milk. In the rarer instance that contraindicated medication is not diffused back to the patient's bloodstream, the adulterated milk must be removed to ensure the nursling is not exposed to it. In both cases, if breastfeeding is interrupted, patients need help to maintain their milk supply and to preserve their breastfeeding relationships.

Given the recommendations about extended duration of breastfeeding, it behooves all sectors of health care to support best practice. This decision tree is intended to assist in the decision-making process, particularly for those in areas of health care not typically associated with breastfeeding support. To prescribe for lactating and breastfeeding patients, we recommend policy and procedures, reference books, websites, and helpline telephone numbers be kept updated and easily accessible. Careful consideration in the use of medications will benefit both patients and their infants.

## References

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