Keeping In The LLLoop

Fall 2013

Drug Therapy in the Breastfeeding Woman: A Resource Update

By Kim Bright, Associate Area Professional Liaison, LLLC-Manitoba/Saskatchewan

Disclosure: Kim also holds a BSc Pharm. Leaders, including pharmacists when wearing their 'Leader hat', are very careful not to provide medical advice, including not being perceived to be prescribing. They only share information *verbatim* from reliable sources. [Nicola Aquino, Professional Liaison Administrator]

The phone recently rang on a Sunday afternoon. A breastfeeding mom needed information on a drug that her psychiatrist wanted her to start. He had told her to wean her baby and she didn't want to end the breastfeeding relationship. I have been a pharmacist for almost 35 years, breastfed for 10 years, and am a local contact person for the Professional Liaison Department of La Leche League. I was able to find her the information that she needed to reassure herself, and her doctor, that she didn't need to wean her baby.

This happens often in my area of the country, and is still quite common elsewhere to judge from forums for breastfeeding advocates and health care professionals (from across the continent) that I read on-line. The reality is that there are few instances when breastfeeding must be interrupted; I hope the information below will help you to ensure your resources are up to date so that you can support your breastfeeding clients to reach their breastfeeding goals.

I started my DRUGS file about 20 years ago. The article that most influenced me at the time (and that I still re-read) was from *The Journal of Human Lactation* 9:97-107 (1993) by Marsha Walker titled "A Fresh Look at the Risks of Artificial Infant Feeding". She presented this paper at the 1992 ILCA Conference in Chicago. It totally changed my perspective on risk (specifically of artificial formulas) and increased my desire to help preserve the breastfeeding relationship. When we follow "DO NO HARM" as health care professionals, we must constantly have in the back of our minds the risks associated with NOT breastfeeding. Research tells us that not breastfeeding increases the risk of developing many diseases, including autoimmune diseases; the costs to treat autoimmune diseases today are staggering. For example, it costs almost $5000.00 for 8 weeks of Remicade injections to treat Crohn's disease; $1800.00 for 4 weeks of Humira injections to treat rheumatoid arthritis. Type 1 (and Type 2) diabetes are rampant, creating significant costs to individuals and the health system. And the list goes on. How do we make parents and health professionals aware of the relative risks of drugs in breastmilk vs. the risks of artificial feeding? Health professionals can ask themselves questions such as: Do I

want to do everything possible to help mothers breastfeed to possibly avoid (or at least minimize the risk of) these diseases in their children? How do I effectively present the information so parents can make informed choices? From an article in *Breastfeeding Abstracts* called "When Breastfeeding is Not Contraindicated", Dr. Jack Newman says, "There will never be an absolute answer to many questions about breastfeeding being contraindicated: for example, should a mother continue breastfeeding while taking drug x? In every such instance, the risks on one side must be weighed against the risks on the other—is it safer to continue breastfeeding with the tiny amount of drug x in the milk or is it safer for the mother to stop breastfeeding and give the baby formula? Which has more risk? The answer depends on how seriously we take the risks associated with artificial feeding." So long as formula is seen as a low or no-risk alternative, health professionals will continue to recommend, and mothers will continue to choose, weaning over breastfeeding while taking a prescribed medication.

However, there are many evidence based resources available to health professionals. I am sitting at my kitchen table with 20 years worth of abstracts, articles, books and an iPad with the newest apps. I am quite sure that a lot of readers will already have access to these resources. It still amazes me how fast information can be accessed online these days; 25 years ago, I would have to go to the University Library to order (and pay for) a journal abstract and it would take weeks to arrive in the snail mail! (I am sure that has made some of you youngsters laugh and has those over a certain age nodding in agreement.)

Here is a list of books, mobile apps, phone numbers and a few favourite articles that you may find useful:

1. Thomas W. Hale, R. Ph., PhD published his first *Medications and Mothers' Milk* in 1992. The newest publication is the Fifteenth Edition 2012. It is a gem. In the Foreword he explains the new changes from past editions. "It contains hundreds of new drugs, diseases, herbals and many additions. In addition, in May of 2010, the AAP withdrew and retired (redacted) their old policy statement on the transfer of drugs and other chemicals into human milk. Since this publication was both retired and withdrawn, I decided it was only proper to remove all safety recommendations by the AAP." Other changes include: more over-the-counter drugs, many new immunomodulating drugs, vaccines, anti-cancer drugs, diseases, radiocontrast agents and an amazing amount of data on radiation use. Also available is the InfantRisk Centre mobile application to "access over 20,000 prescription and non-prescription medications and their safety ratings backed by reliable evidence-based research." The YouTube video explains how to use the app, what is available in the app, the price and how to call with specific questions. (806-352-2519). It is available to download on the AppStore and the Android Market.
2. LactMed is part of the National Library of Medicine's Toxicology Data Network (TOXNET: http://toxnet.nlm.nih.gov/) —a database of drugs to which breastfeeding mothers may be exposed. All data are derived from the scientific literature and fully referenced. One section I really like is drug class and alternate drugs to consider. When I am searching (as a pharmacist) for a drug that will have the same effect but is less available in the milk I go to this section. This is a free app.
3. Motherisk from The Hospital for Sick Children in Toronto. (416-813-6780) http://www.motherisk.org. They provide a listing of Drugs Usually Contraindicated while Breastfeeding. They also have a helpline (877-439-2744) and an extensive listing of Journal articles. Many mothers may also phone Motherisk if they are concerned about a prescribed medication.

4. *Drugs in Pregnancy and Lactation*, 9th Edition (Briggs, Freeman, Yaffe) The current 9th edition has 1200 commonly prescribed drugs (with 105 new drugs). It has a mobile application and companion website with updates from the Briggs newsletter.
5. *Nonprescription Drugs for the Breastfeeding Mother* 2nd Edition 2011. (Frank Nice R. Ph, DPA, CPHP) In his preface, Dr. Nice offers counselling; guidelines and an explanation of the codes that apply to all the tables in the booklet. He also uses (with permission) Dr. Hale's Lactation Risk categories. The drugs are arranged alphabetically in categories: e.g. Analgesics, Antipyretics, Headache and Migraine products, Cold Flu and Allergy Products, Herbal Galactogogues and Herbals. There is an interesting section on caffeine content. The website www.nicebreastfeeding.com provides counseling tips for pharmacists and other useful breastfeeding websites. J Am Pharm.Assoc:2012 :52:86-94 is an excellent article by Frank Nice and Amy Luo called "Medications and Breastfeeding: Current Concepts".
6. The Transfer of Drugs and Therapeutics into Human Breastmilk: An update on selected topics from Pediatrics. http://pediatrics.aappublications.org/content/early/2013/08/20/peds.2013-1985 [This was republished after the 15th Edition of *Medications and Mothers' Milk*.]
7. Social Drugs and Breastfeeding (Denise Fisher Nov 2006) http://www.health-e-learning.com/resources/articles/40-social-drugs-and-breastfeeding
8. MedSafe (New Zealand) Drug Safety in Lactation (Revised June 2013) http://www.medsafe.govt.nz/profs/puarticles/lactation.htm
9. Breastfeeding/Human Lactation Centre University of Rochester. They maintain a database of medical information, drugs in lactation and breastfeeding program (health professionals may phone 585-275-0088)
10. The UK National Health Service "Quick Reference Guide for Drugs in Breastmilk" at http://www.ukmicentral.nhs.uk/drugpreg/qrg.htm [currently being revised].

We are very lucky to have access to many reliable and up to date resources to help us help our breastfeeding mothers. Let's take the time to be good detectives, use evidence based information and ensure that mothers reach their breastfeeding goals.

Health Professional Seminars a Success

During 2013, Nancy Mohrbacher presented "**Using the Natural Laws to Find Breastfeeding Solutions**" nine times, visiting cities from Victoria, BC, to St. John's, NL, reaching 717 attendees. The evaluations were overwhelmingly positive (> 90% ranking the day "excellent" or "very good"). Thank you to everyone who attended! Nancy also enjoyed her whirlwind tour of Canada. You can find Nancy's latest news on her website at http://www.nancymohrbacher.com/

Information about the 2014 spring Health Professional Seminar Series and fall National Family Conference will soon be available. If you are not already on the mailing list, please contact Kate at events@lllc.ca .

What's Normal?
A Quiz about breastfeeding past infancy

Prepared by Anne Kirkham and Michelle Pensa-Branco, Area Professional Liaison Leaders, LLLC-Central and Southern Ontario

1. A breastfed baby at 6 months of age will likely feed just as many times in a day as he did at 1 month of age.
    a. True
    b. False
2. Mothers who are breastfeeding their babies beyond 6 months of age are most likely to directly curtail breastfeeding because:
    a. They need to return to paid employment
    b. They lack cultural support for breastfeeding an infant who is eating other foods.
    c. Their baby will likely be too distractible when the mother attempts to breastfeed away from home
    d. Family members want to give the baby formula
    e. a and c
    f. b and d
3. Babies who breastfeed past one year obtain a significant protection from disease because:
    a. the breastfed baby has less contact with other toddlers
    b. IgA production by children does not begin until 18 months and takes over 3 years to develop
    c. This is not true because the constituents of human milk change over time and the levels of immune factors are reduced after 6 months.
    d. breastfed babies do not develop enough immunity through vaccinations

4. A mother reports that she is experiencing extreme pain in her left nipple when breastfeeding her 13-month old son. Prior to this, she has been comfortably breastfeeding with no difficulties since baby was born. Which is the ***least*** likely source of her pain?
    a. Pregnancy
    b. Acrobatic toddler nursing
    c. Bacterial infection
    d. Yeast infection

5. A mother reports that her 10-month old baby is very distracted while nursing, especially outside the home. The baby is waking more frequently at night recently. The baby is thriving and meeting milestones as expected. What is the most likely cause of these changes?
    a. Baby is self-weaning.
    b. Mother's milk supply is dwindling.
    c. Baby is reverse cycling.
    d. Baby has reflux.
6. Mothers find it easier to breastfeed a baby at 4 months because:
    a. Babies exhibit less colic and become engaged with other family members
    b. Babies are usually sleeping 6 hours at night
    c. Babies only need to breastfeed for 10 minutes each side to achieve satiety.
    d. Mothers are more confident that their baby is effectively feeding and reduce dependence on the help of health workers.
7. World-wide, the average age of weaning is:
    a. 6 months
    b. 3.5 years
    c. 1 year
    d. 4 months

Answers on page 7

Book Review

Preparing to Breastfeed: A Pregnant Woman's Guide **by Teresa Pitman**

Reviewed by Nicola Aquino, Professional Liaison Administrator

"Here's the truth: Breastfeeding doesn't have 'benefits.' It's just the biologically normal way to feed a baby." How many times have lactation educators said that? Now we have it in print thanks to Teresa Pitman's new book, *Preparing to Breastfeed*, published by Hale Publishing.

The book follows a very logical pathway from "The Truth about Breastfeeding" (Chapter 1) through "Birth Plans and Breastfeeding" (Chapter 4) to "Life With a Breastfeeding Baby" and "Your Breastfeeding Goals" (Chapters 9 & 10), covering the importance of breastfeeding, and the risks of not breastfeeding, along with the how-tos, in a manner reminiscent of a La Leche League meeting or telephone helping call. The tone is warm and the language accessible; she even manages to elicit a few smiles, like when she uses "oroboobular disproportion". Each chapter ends with "What You Can Do Now" listing ways to prepare for breastfeeding while still pregnant. These include attending a La Leche League meeting and discussing both birth and breastfeeding plans with your partner, along with some questions to help mothers-to-be put stories they may have heard into perspective.

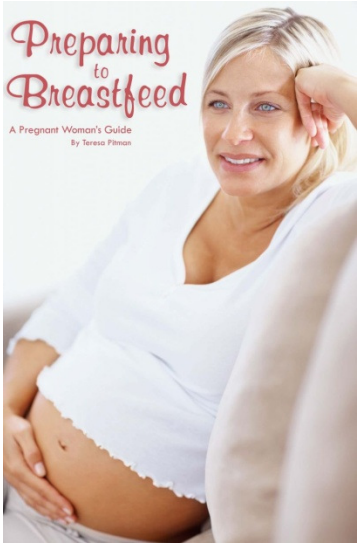
Teresa successfully walks the balance of "full disclosure", that is "these are the things that might go wrong" (and what to look for and how to avoid/solve them), with the realities that most mothers do not have

significant problems. She is up front about concerns mothers might have, but not condescending as she reassures and explains how to not let it become a reality. This is illustrated on page 52, "Making Your Choices":

> I want to be really clear: I am not saying women should not have epidurals, pain medication in labor (*sic*), C-sections, etc. All of these available interventions are valuable and can reduce or eliminate pain, and even save lives. I believe women should be able to choose the labor and birth that is right for them (given, of course, that you need to be flexible to respond to any unexpected situations or complications that might arise).
>
> I believe, though, that choices should be made with full information – and some of these interventions have the potential to make breastfeeding more challenging. That doesn't mean you shouldn't choose them if that's what you want. But you might also want to plan for extra breastfeeding help once your baby is born, or express some colostrum prenatally, so it will be available if your baby has some difficulties latching on at first, or plan to bring in some research on the effects of IV fluids on newborn weight loss in case you get pressure to supplement, etc.

Some of the other sub-headings are eye-catching. How about, "Your Baby Is Not Lazy, Stubborn, Incompetent, or Rejecting You" or "It's All You: Comfort, Food, Sleep" (acknowledging that "While there's something lovely about that, it can also feel overwhelming to a new mother"); But my favourite line in the whole book is on page 56, under "Equipment for Breastfeeding": "Truth is, you have everything you need: breasts and (soon) a baby. Done."

Do I have anything negative to say? I would have liked a few more references (but I am an information junkie), although 40 are listed at the end. I also have a small quibble with the phrasing on page 13 that "eventually the live antibodies will begin to die off" when discussing the antibacterial properties of human milk. Certainly the live white blood cells start to die off and the antibodies, which are really free floating proteins, will be used up (attached to antigens or denatured). However, I do understand that the average reader will not have a degree in microbiology, so this is minor. I even learned something new. On page 12, "one recent study discovered that when babies digested formula (but not human milk), a toxin was produced that actually destroyed some of the cells in the baby's intestines (Penn et al., 2012)." I will be tracking that reference down.



By now I am sure you are expecting my conclusion: a wholehearted recommendation of the book. At only 110 pages it is a quick read (and at approximately $20, affordable) and it will give mothers-to-be balanced evidence-based information, which they can use to make informed plans for birth and breastfeeding.

How do I get a copy? *Preparing to Breastfeed* is available through the LLLC Health Professional Virtual Bookstore http://www.lllc.ca/virtual-bookstore ; once you "access the store", just type the book title into the search box at the top.

Answers to What's Normal? Quiz

1. **a)** True. It is erroneous to expect that the number of feedings will likely change consistently between 2 and 6 months of age. Research by Kent in 2006 and 2007 showed that babies' feeding patterns were more correlated to their mothers' milk storage capacity than to any age or maturity. In a group with no milk supply problems and normal growth and development, mothers with smaller storage capacity fed more frequently and for shorter lengths of time than those with large storage capacities.
   Mohrbacher, N. *Breastfeeding Answers Made Simple* (2010). Hale Publishing, p.80-81
2. **f)** North American mothers most commonly report the baby being "old enough to wean" as the reason for weaning in the second half of the first year. Reports of friends and family exhibiting a gradual withdrawal of support may begin with silence regarding breastfeeding and progress to negative commentary and finally active encouragement to wean. Although return to paid employment is one reason cited in several surveys of mothers since the early 1980's, social support and mothers feelings about a socially acceptable appropriate time to wean were the most common reasons in several recent studies. The degree of worry about how demanding breastfeeding will be is correlated with earlier weaning and mothers who described breastfeeding as positive continued when returning to paid work.

   You are welcome, even encouraged, to use this quiz for educational purposes with colleagues and staff.

   Ref: Lawrence R. and Lawrence R. (2011), *Breastfeeding: A Guide for the Medical Profession*, 7th Ed. p. 328-334.
   Kirkland and Fein (2003) Characterizing reasons for breastfeeding cessation throughout the first year postpartum. *Journal of Human Lactation* vol. 19, 3: pp. 278-285.
   Kendal Tackett, K. Sugarman, M. (1995) The social consequences of long term breastfeeding. *Journal of Human Lactation* vol. 11, 3: pp. 179-183
   Morse, J. Harrison, M. (1987) Social Coercion for Weaning *Journal of Nurse-Midwifery* 32(4).
   Lawrence R. and Lawrence R. (2011), *Breastfeeding: A Guide for the Medical Profession*, 7th Ed. p. 298-300.
3. **b)** Older babies and toddlers who are breastfeeding obtain a significant amount of disease protection compared to non- breastfed babies. Immune response in children under the age of 3 is immature and their production of complement, sIgA, interferon-γ, interleukins, lactoferrin and lysozyme is low making them susceptible to infections. Bioactive components in human milk enhance the development of the infant's immune system and fill this gap. All babies have equal odds of coming into contact with other children, whether it is older siblings or through organized structured play settings. Vaccination responses in breastfed babies and toddlers show higher antibody response and increased effectiveness. The concentration of several immune factors has been shown to increase in human milk after one year and during gradual weaning.
   Lawrence R. and Lawrence R. (2011), *Breastfeeding: A Guide for the Medical Profession*, 7th Ed.
4. **a)** Pregnancy. Pregnancy can be the cause of newly sore nipples and it might be a suspected cause in the mother of a breastfeeding toddler. However, because the cause is hormonal, the pain is generally bilateral.
   References: Moscona SR, Moore MJ. Breastfeeding during pregnancy. *J Hum Lact*. 1993 Jun;9(2):83-88

5. **c)** Baby is reverse cycling. Distractibility and separation anxiety are hallmarks of the 8-10 month old baby. Both of these lead to a pattern of feeding more briefly during the day and more frequently at night. Busy days sometimes lead paradoxically to busy nights for the older breastfeeding infant, who makes up for calories missed during daytime feeds with night-time nursing.
   If mother is unable or unwilling to breastfeed at night, she may find that her milk supply is affected. If these changes are not accurately identified, mothers may turn to increasing supplemental feedings, which may lead to premature weaning. While cueing for short, frequent feeds is sometimes a sign of reflux, this is not as likely in the older, otherwise healthy infant.
6. **a) and d)** In general, infant crying is reduced around 3 months of age and "colic" usually lasts about 3 months then improves; and at this age babies are starting to interact with their surroundings and other family members. Mothers are usually "in the groove", adjusting to parenthood so are more relaxed. A consistent percentage of both bottle-fed and breast-fed babies will sleep a long stretch at night by 4 months. Some babies will continue to wake regardless of feeding routines or intake and this is considered to be due to temperament.
   Huggins, K. (1990) *The Nursing Mothers Companion* Rev. Ed., Harvard Common Press
   Pitman, T., D. Weisseinger and D. West, (2011) *The Womanly Art of Breastfeeding* 8th Ed.
7. **b)** Katherine Dettwyler, an anthropologist has studied weaning in many cultures and determined that the average age of weaning is 3.5 years. She also used various markers to compare human feeding practice to other mammals and determined that age of weaning should be between 2.5 and 7 years, depending on which parameter is used. http://www.lalecheleague.org/NB/NBMayJun95p86.html

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