An Industry Perspective on Conducting a Lactation Study

FDA Lactation Workshop

Jeff Simpson, PhD

UCB BioSciences, Inc.

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Disclosures

Current employee of UCB BioSciences, Inc.

Lactation Study Overview

Why was the study performed?

- How was the study designed?
- What were the primary challenges?
- How were these challenges addressed?





A RESEARCH STUDY TO EVALUATE The Concentration of Certolizumab Pegol in the Breast Milk of Mothers Receiving Treatment with Cimzia®



A Multicenter Postmarketing Study to Evaluate Breast Milk Transfer in Lactating Mothers Receiving Treatment for Crohn's or Rheumatologic Diseases



Why Did UCB BioSciences, Inc. Conduct CRADLE?

UCB's Women of Childbearing Age Program is focused on studies with certolizumab pegol (Cimzia[®]) in inflammatory diseases and is driven by the needs of patients and physicians

- Program Goal: Provide robust data to better inform treatment decisions for women with chronic rheumatic diseases and Crohn's Disease planning for pregnancy and/or breastfeeding
- CRADLE Study Goal: Generate robust data to include in the Cimzia[®] (CZP) product label so that women treated with CZP considering breast feeding and their treating physician can make informed decisions for the benefit of mother and child

Overview

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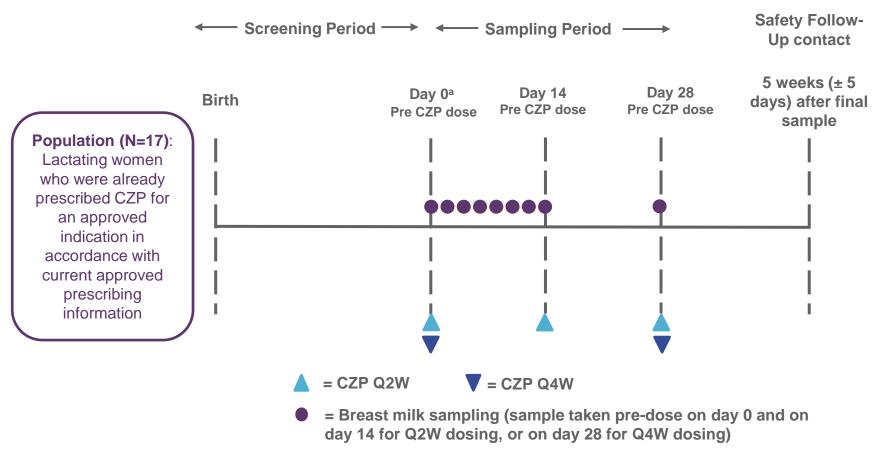
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CRADLE: Clinical Study Design

Objective: Determine the concentrations of CZP in human breast milk and calculate the daily infant dose of maternal CZP



CZP assay – validated in milk – LLoQ = 0.032 µg/mL

^aDay 0 of the Sampling Period should be at least 6 weeks after delivery, and when the subject is on an established dose regimen (at least the third dose, regardless of CZP dosing schedule, but no maximum limit)

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CRADLE: Selected Enrollment Criteria

Subject has delivered term infant(s) (at least 37 weeks gestation)

- Subject is being treated with CZP as per the locally approved label
- The decision to treat with CZP or to breastfeed is made independently from and prior to the subject consenting to participate in this study

Subject is at least 6 weeks postpartum

- Subject is on an established dosing regimen of CZP (at least the third dose of CZP since starting/restarting CZP)
- x Subjects with mastitis infection should not have samples collected until the infection is completely resolved

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Enrollment Challenges

There are numerous challenges in recruiting lactating women who are already taking CZP

- Label Information on breastfeeding
 - US package insert for CZP (revised Nov 2012) states: "...a decision should be made whether to discontinue nursing or discontinue the drug, taking into account the importance of the drug to the mother."
 - EU label for CZP (29 Jan 2013) states: "A decision on whether or continue/discontinue breastfeeding or to continue/discontinue therapy of CZP should be made taking into account the benefit of the breastfeeding to the child and the benefit of CZP therapy to the woman."
- Must seek out the HCPs who are prescribing CZP, see lactating women and continue anti-TNF treatment during lactation
- Must locate women already taking CZP and who are breast feeding
- > Once women are located, they may not be near a study site
- Industry Medical/Ethical/Legal considerations are especially challenging given sensitive patient population (ie. consenting patients must already be on CZP; HCP must normally prescribe anti-TNFs during breast feeding)
- > Must avoid any impression CZP is being promoted as safe for nursing babies
- > Women must allow breast milk samples to be collected every other day for 2 weeks
- > No incentive for mother to participate (altruistic contribution)

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Enrollment: Innovative Approach

Open Enrollment Model ("remote" clinical study site)

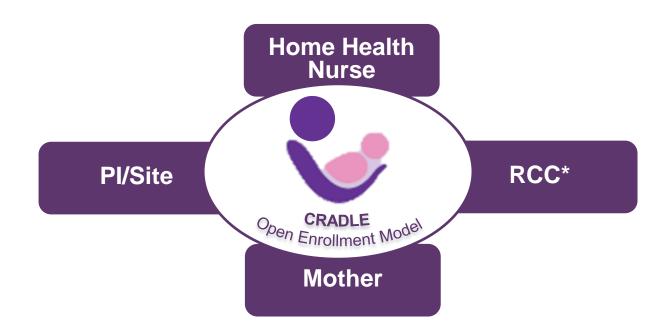
A broad web-based outreach program was implemented to seek out lactating mothers taking Cimzia and their HCPs to maximize the potential of this model (Google AdWords, strategic ad placement, patient advocacy and medical organizations, etc.)

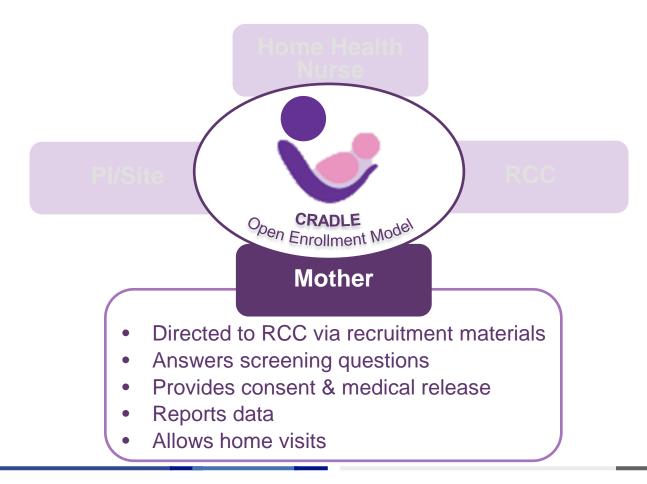
Interested patients were directed to the CRADLE website: <u>www.CRIBandCRADLEstudy.com</u>

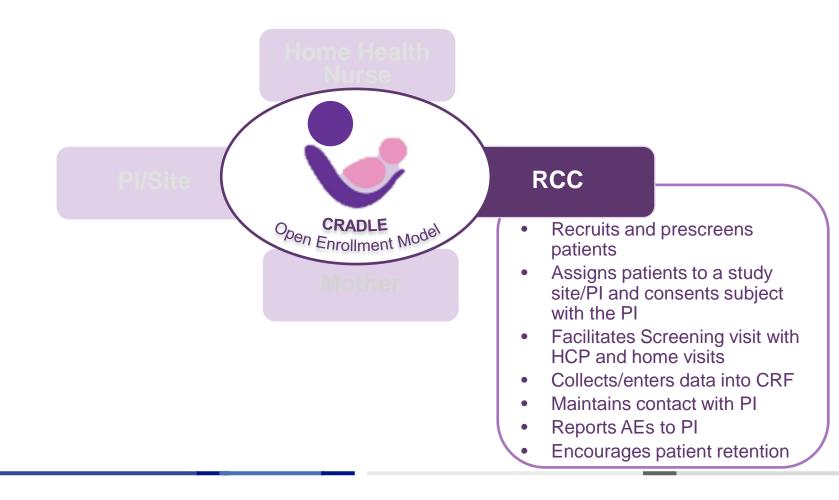
- Patients may call PPD's Research Coordination Center (RCC) toll-free number to register or they may perform a **brief online prescreen questionnaire.** If they prequalify and provide their consent, they are contacted by the RCC
- If patient is still interested, the RCC assigns patient to a Central Principal Investigator (PI) who is responsible for remote oversight and management of the patient and her infant during the study
- Traditional clinical sites and PIs participated as well

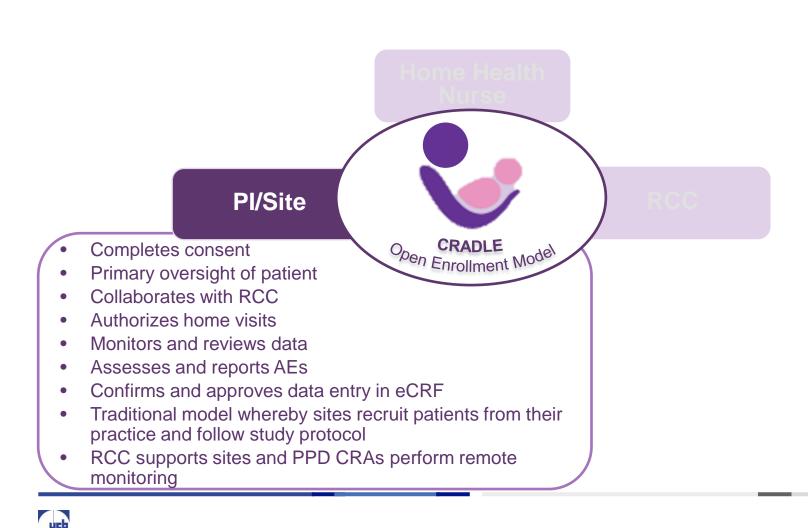
Enrollment: Study Website

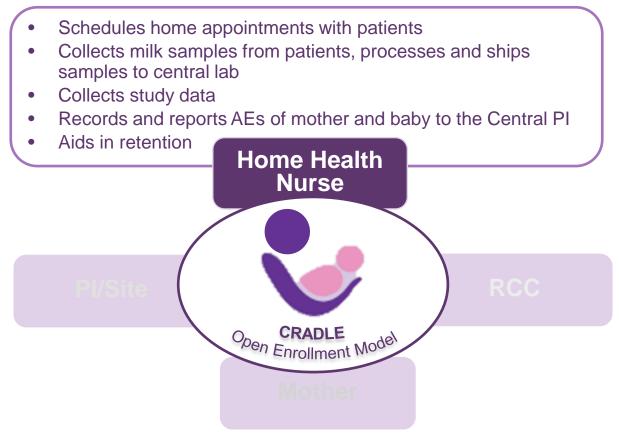


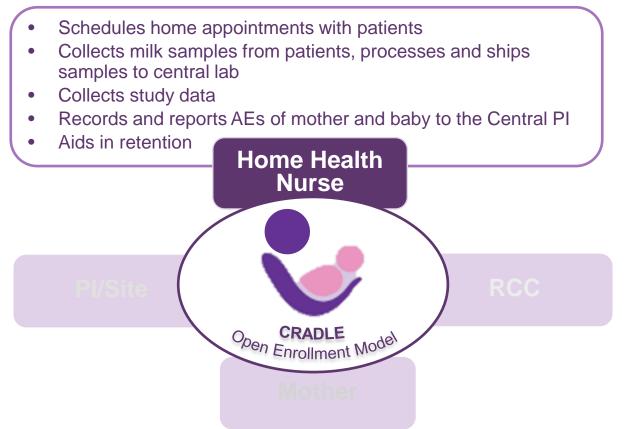












Successfully completed visits (n=137)	100%
Visits in window	99%
Visits without issues	98%

Impact of Operational Model

Recruitment, Retention, and Patient Value

- Ability to enroll patients who may not otherwise be interested in or capable of participating in a clinic study
 - Increases pool of potentially eligible patients for enrollment
 - Allows the study to be conducted where the patient(s) are located
 - Reduces need to open additional traditional clinical sites saving time and resource

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Enhances patient and site satisfaction

- Increases likelihood that patient will enroll and complete the study
- Minimizes disruption of mother-infant breast-milk feeding routine
- Minimizes patient's travel and time commitment
- Principal Investigators/site staff willing to search for eligible patients, including looking for means to recruit additional patients outside their clinics (ie., sending doctor to doctor letters, conducting educational sessions, etc.)

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Provides a well-controlled, consistent approach resulting in robust data that supports informative breast feeding guidance

Impact of Operational Model: Patient Value

Anonymous feedback from a CRADLE participant:

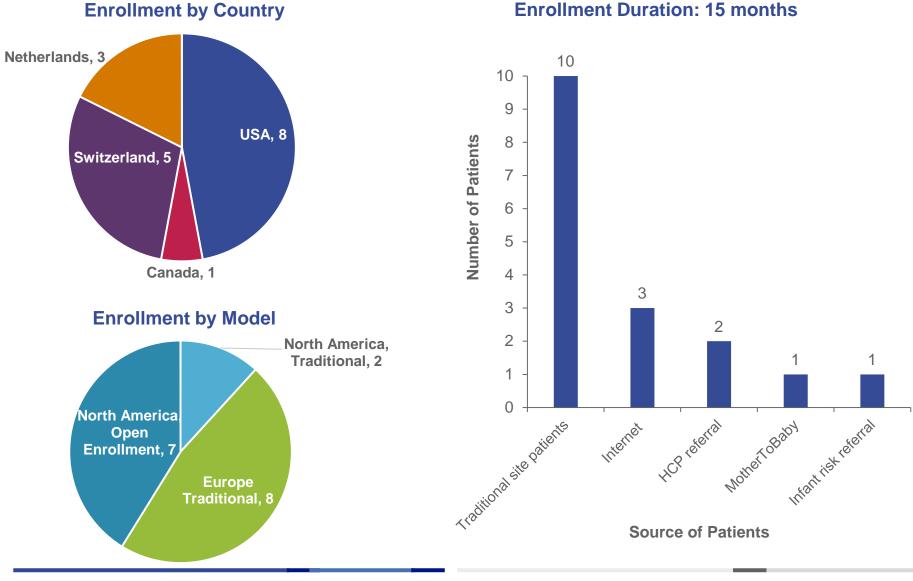
"I have lived with rheumatoid arthritis for close to 35 years. I was diagnosed as a toddler, just before I turned one and a half. Now I'm a happily married, mother to three amazing children, the youngest of whom just turned one and is breastfeeding on demand, up to six times a day.

I stumbled across the website for the CRADLE Study. **I filled out the quick, easy online survey**, and a few days later received a phone call from my lovely contact, Karen, to discuss my potential participation in the study.

The process was relatively seamless. I felt very supported by the staff and doctor at the Study. Everyone made an effort to answer any questions I had, and accommodate my needs for scheduling phone calls or other communication. I was set up with a home health nurse who brought all of the supplies I needed for the study, The nurse and I devised our schedule, and with little time or effort, our visits were completed over a two week period between injections. Probably the biggest hassle of the entire process was having to pump in the morning before the nurse came, since that is generally not part of my morning routine!

I am incredibly happy to have had this opportunity. Thank you again for this opportunity."

CRADLE Enrollment Summary



Enrollment Duration: 15 months

Summary

Lactation studies present unique challenges

- The Open Enrollment model provides access to a patient population that may not otherwise be willing or able to participate
- Home healthcare nursing visits are essential to successful recruitment and conduct of lactation studies of medications with longer half-lives
- Industry sponsored lactation studies of biologics can be successfully conducted
- These studies can provide robust data to better inform treatment decisions for women with chronic diseases considering breast feeding