

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*

**204654Orig1s000**

**PHARMACOLOGY REVIEW(S)**

MEMO

FOOD AND DRUG ADMINISTRATION

---

**Division of Reproductive and Urologic Products  
Center for Drug Evaluation and Research**

**Date:** 5/16/2013

**Reviewer:** Alex Jordan, PhD

**NDA #/SS#/date:** 204654

**Sponsor:** Warner Chilcott

**Drug Product:** Norethindrone acetate/ethinyl estradiol/FE tablets

**Indication:** Contraception

**Recommended Action:** Approval

---

**Background:** I agree with the primary reviewer Dr. Raheja that NDA 204654 is approvable for contraception from a pharmacology standpoint.

-----  
**This is a representation of an electronic record that was signed electronically and this page is the manifestation of the electronic signature.**  
-----

/s/  
-----

ALEXANDER W JORDAN  
05/16/2013

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
PUBLIC HEALTH SERVICE  
FOOD AND DRUG ADMINISTRATION  
CENTER FOR DRUG EVALUATION AND RESEARCH

PHARMACOLOGY/TOXICOLOGY NDA/BLA REVIEW AND EVALUATION

Application number: 204654  
Supporting document/s: e-submission  
Applicant's letter date: 9/27/2012  
CDER stamp date: 9/28/2012  
Product: Norethindrone acetate (NA) / Ethinyl estradiol  
(EE)/FE tablets (b) (4)  
Indication: Prevention of pregnancy  
Applicant: Warner Chilcott  
Review Division: RUDP  
Reviewer: Krishan L. Raheja, D.V.M., Ph.D.  
Supervisor/Team Leader: Alex Jordan, Ph.D.  
Division Director: Hylton, Joffe, M.D. MMSc  
Project Manager: Pamela K. Lucarelli

*Review entered in DARRTS: 4/19/2013*

**Disclaimer**

Except as specifically identified, all data and information discussed below and necessary for approval of NDA 204654 are owned by Warner Chilcott or are data for which Warner Chilcott has obtained a written right of reference.

Any information or data necessary for approval of NDA 204654 that Warner Chilcott does not own or have a written right to reference constitutes one of the following: (1) published literature, or (2) a prior FDA finding of safety or effectiveness for a listed drug, as reflected in the drug's approved labeling. Any data or information described or referenced below from reviews or publicly available summaries of a previously approved application is for descriptive purposes only and is not relied upon for approval of NDA 204654.

## 1 Executive Summary

1.1 Introduction: This NDA provides for a new method of administration for a low dose oral contraceptive consisting of one chewable tablet containing 1 mg norethindrone acetate and 10 ug ethinyl estradiol ( (b) (4) 1/10 chewable tablets) taken daily for 24 days followed by one tablet containing 10 ug ethinyl estradiol alone taken daily for 2 days, and one ferrous fumarate tablet taken daily for 2 days to facilitate 28-day regimen. (b) (4) 1/10 chewable tablets may be (b) (4) chewed before swallowing and followed with liquid; the 4 remaining tablets are swallowed. In lieu of nonclinical pharmacology and toxicology information, this application makes reference to sponsor's NDA 022501 approved on 10/20/2010 for Lo Loestrin Fe which consists of the same regimen and daily doses of active ingredients as in (b) (4) but in which all 28 tablets are swallowed.

1.2 Brief Discussion of Nonclinical Findings: All nonclinical pharmacology/toxicology information referred to sponsor's approved NDA 022501 for Lo Loestrin Fe.

1.3 Recommendations:

**1.3.1 Approvability:** Pharmacology/Toxicology recommends approval of (b) (4) under NDA 204654 for the indication of prevention of pregnancy

**1.3.2 Additional Non Clinical Recommendations:** None

**1.3.3 Labeling:** Sponsor has provided drug label in PLR format which is acceptable from the Pharmacology/Toxicology perspective.

## 2 Drug Information

2.1 Drug

CAS Registry Number (Optional)

For norethindrone acetate CAS number: 51-98-9

For ethinyl estradiol CAS number: 57-63-6

Generic Name: Norethindrone acetate, ethinyl estradiol, ferrous fumarate

Code Name: (b) (4)

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.