UKMi
UK Medicines Information

UK Drugs in Lactation Advisory Service

EVIDENCE SUMMARY

URSODEOXYCHOLIC ACID

BNF category	**1.9.1** – Drugs affecting biliary composition and flow
Evidence	The evidence on the safety of the use of ursodeocholic acid (UCDA) is based on four studies, three of which are case reports and the other relating to colostrum. The first report is of a 41 year old patient with the diagnosis of stage III primary biliary cirrhosis (PBC), who had been treated with UDCA (750 mg/day) for three years [1]. She received UDCA during pregnancy with no drug-related side effects observed. Following delivery by Caesarean section at week 34 of pregnancy, the newborn thrived normally during a follow-up period of six months. When mother's breast milk was analysed cholic acid, deoxycholic acid and lithocholic acid, but not UDCA, were detected in trace amounts. The authors concluded that UDCA therapy in PBC may be continued in the early pregnancy and during the breastfeeding period. In a second report, seven patients with intrahepatic cholestasis of pregnancy were treated with UDCA at 14 mg/kg/day for 14 (7-21) days, until delivery [2]. UDCA reduced mean total bile acid concentrations in colostrum from 23.3 to 5.7 micromol/L. UDCA levels in colostrum remained largely unchanged (mean 0.2 vs 0.3 micromol/L for untreated vs treated respectively). Adverse effects were not reported by mothers in breastfed infants following treatment with UDCA. The authors concluded that, considering the small dosage of UDCA and the irrelevant levels of lithocholic acid in colostrum and breast milk delivered to the newborn, toxicity is not expected to occur in nursing infants. In a more recent case report [3], a mother was diagnosed with Stage III PBC three weeks after delivery. UDCA treatment was initiated with a dose of 500 mg/day (7.5 mg/kg/day), increasing by 500mg after analysis of bile acids in the breast milk, until 1500 mg/day (25 mg/kg/day) was reached. UDCA treatment led to a substantial clinical improvement with no effects on the breast milk bile acid content. Psychomotor development of the child was normal, and no apparent side-effects of the treatment were observed in either child or mother. The authors concluded that UDCA treatment during lactation was safe. In another case report a mother receiving oral ursodiol 250mg 3 times daily for primary biliary cirrhosis reportedly breastfed her infant normally, although the extent and duration of breastfeeding was not stated [4].
SPC	The manufacturer states that "*It is not known whether ursodeoxycholic acid passes into breast milk. Therefore, ursodeoxycholic acid should not be taken during lactation. If treatment with ursodeoxycholic acid is necessary, the infant should be weaned*" [5]. This statement is not supported by either the evidence or by UKDILAS.
Conclusion/ Advice	**Ursodeocholic acid has a low side effect profile in normal adult use. Taking this and the limited data on its excretion into breast milk in to account, we would consider UDCA to be safe to use in mothers who are breastfeeding full-term infants.**
References	1. Rudi J, Schönig T, Stremmel W. Therapy with ursodeoxycholic acid in primary biliary cirrhosis in pregnancy. Z Gastroenterol 1996;34:188-91. 2. Brites D, Rodrigues CM. Elevated levels of bile acids in colostrum of patients with cholestasis of pregnancy are decreased following ursodeoxycholic acid therapy. J Hepatol 1998;29:743–51

3. Vitek L, Zelenková M, Bruha R. Safe use of ursodeoxycholic acid in a breast-feeding patient with primary biliary cirrhosis. Dig Liver Dis 2010;42:909-12
4. Goh SK, Gull SE, Alexander GJ. Pregnancy in primary biliary cirrhosis complicated by portal hypertension: report of a case and review of the literature. BJOG 2001;108:760-2
5. Summary of Product Characteristics (SPC) for Ursofalk 250mg Hard Capsules; Dr Falk Pharma UK. eMC (www.medicines.org.uk). Updated on eMC 18/10/2011, Accessed <21/10/2011>