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## Cotinine levels in breast milk of exclusively breastfeeding mothers using high-performance liquid chromatography

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**Objective:** The aim is to determine the levels of cotinine in breast milk of exclusively breastfeeding mothers using high-performance liquid chromatography.

**Method:** This is a cross-sectional analytical study design involving the quantitative determination of cotinine from breast milk of breastfeeding postpartum mother. The breast milk samples were collected at the Pediatric Out-Patient Department of West Visayas State University Medical Center. The measurement of cotinine levels using high-performance liquid chromatography was done at the ChemPro Analytical Services Laboratories, Inc. All postpartum exclusively breastfeeding mothers aged 19-45 years old who delivered to full term, healthy infants at the West Visayas State University Medical Center from March 1 to May 31, 2018 were included. Cotinine levels in breast milk in nanogram per milliliters (ng/ml).

**Results:** Active smokers had significantly higher mean cotinine levels (217.55 ng/ml) when compared to passive smokers (44.7 ng/ml) and non-smokers (18.38 ng/ml). Data analysis showed that as the degree of smoking exposure increases, the cotinine levels in the breast milk also increases.

Conclusion: The breast milk cotinine was able to indicate the quantity of non-passive and active smoking maternal exposure. Evidence suggests that breast milk contains a significant amount of cotinine which can help determine the degree of smoking exposure in breastfeeding mothers. Even though smoking by the mother is still not a contraindication for feeding infants as the benefits far outweighs the risks, the results of this research can be used in planning population-based studies and strengthen health education programs on smoking prevention, smoking reduction and smoking cessation in homes, public areas and workplaces.

### **Biography**

Jerrymae R Blasurca has obtained her Medical degree in Central Philippine University and pursued her Pediatric Residency Training at West Visayas State University Medical Center. She is currently working as at West Visayas State University Medical Center, Philippines.

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