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**All is not well: Irrational nutraceutical zinc preparations in Indian scenario, a systemic analysis****Rithu Baskaran and V Krishnan**

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**Introduction & Scope:** In a report of by World Health Organization in 2003, detailed description of morbidity and mortality prevention of diarrheal illness among children by effectiveness of zinc is provided. Role of zinc in diarrheal illness when used approximately is evident by other pharmaco-epidemiologic studies as well. However, zinc should be administered as per dosage recommendation given vide infra in discussion and should be curtailed in adding with other nutraceuticals which is neither effective nor safe as zinc has its own adverse effects. Hence this observational study was conducted to analyze the currently available rational and essential zinc formulation in our country.

**Objective:** To critically analyze the essentiality and irrational zinc preparations available in Indian markets.

**Methods:** This was conducted as cross-sectional analysis by department of pharmacology of our tertiary care hospital between June and December 2016. Data regarding various formulations of zinc were retrieved from current index of medical sciences and drug India database. Rationality assessment was done using prescribed guidelines and approved formulations of zinc by central drug standard control organization. Essentiality was checked using national list of essential medicine India, 2013 and latest version of WHO list essential medicine bulletin. Dosage regulation was assessed using Indian pharmacopeia guidelines, National Institute of Nutrition, India recommendation and upper daily intake toxicity intake, United States of America (USA).

**Results:** Our study results showed wide variation in the number of zinc preparation. Total number of formulation available in the market is 335. Among zinc preparation, the preparation that contains 20 mg of zinc as recommended by various guidelines is 10 in number. About 325 preparations of zinc are added with one or more nutraceuticals. None of these fixed dose combinations of zinc containing preparation is recommended as essential fixed regimen.

**Conclusion:** Zinc has lot of relevance in treating recurrent diarrheal illness, especially in pediatric cases, however legal, regulatory and educational measures should be followed to curtail all the irrational zinc prescription development, promotion, marketing and prescription.

**Biography**

Rithu Baskaran is currently pursuing her MBBS from Saveetha Medical College, SIMATS. Her area of research is drug development, under the mentorship of Dr. V Krishnan, Department of Pharmacology, SIMATS in India.

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